

MECHANICAL ENGINEERING

*The Journal of The American Society
of Mechanical Engineers*

INDEX TO VOLUME 70

January-December
1948

Published by
The American Society of Mechanical Engineers
29 West Thirty-Ninth Street, New York 18, N. Y.

ACCE
ACET
Re
ACK
Bi
He
ACOU
De
Su
AERO
Fl
W
AGNE
Co
A
AHR
Ser
AIR G
Air
Air
AIR M
A
AIR T
Air
AIRP
Air
Air
Air
At
Dis
AIRP
Air
Fri
No
AIRP
Ele
Ne
A
AIRP
Tr
AIRP
Th
v
AIRP
Co
De
He
Ici
Jet
Lai
Lig
Oso
Pa
Wh
AIRP
Air
ALCO
ALDE
Ap
ALLE
To
ALLE
Re
ALLE
De
ALLO
Fr
Jap
Per

Eugene Lib.
Direct

Engineering
Library
TJ

1449

Index to Mechanical Engineering

Volume 70, January—December, 1948

(A) denotes Abstract; (AC) Author's Closure; (BR) Book Reviews; (C) Correspondence; (D) Discussion; (Ed) Editorial

A

| | |
|--|------|
| ACCIDENT PREVENTION. <i>See</i> Safety Engineering | |
| ACETYLENE PRODUCTION | |
| Reports from Germany (A)..... | 343 |
| ACKART, EVERETT G. | |
| Biography..... | 71 |
| Honorary membership..... | 70 |
| ACOUSTICS. <i>See also</i> Supersonics | |
| Decibel level (A)..... | 833 |
| Supersonic sound waves (A)..... | 156 |
| AERODYNAMICS | |
| Fluid mechanics (BR)..... | 700 |
| Wind-tunnel testing (BR)..... | 163 |
| AGNEW, JOHN T. | |
| Combustion studies using the Golay photothermal detector with an infrared monochromator (A)..... | 697 |
| AHRENDT, WILLIAM R. | |
| Servomechanisms (BR)..... | 925 |
| AIR CONDITIONING | |
| Air conditioning (A)..... | 236 |
| Air conditioning (BR)..... | 367 |
| Air heat pump (A)..... | 346 |
| AIR NAVIGATION | |
| Astro-window (A)..... | 348 |
| A method for the analysis of complex activities and its application to the job of the Arctic aerial navigator (A)..... | 914 |
| AIR TRANSPORTATION | |
| Air transportation; 1947 survey (A)..... | 156 |
| AIRPLANE ENGINES. <i>See also</i> Fuel Injection | |
| Aircraft engines (A)..... | 1002 |
| Aircraft jet engine (D)..... | 637 |
| Aircraft jet engine (A)..... | 693 |
| Atomic aircraft engines (A)..... | 755 |
| Diagnosing engine troubles in flight (A)..... | 635 |
| AIRPLANE HYDRAULIC SYSTEMS | |
| Aircraft hydraulic packings..... | 675 |
| Frictional characteristics of O-rings with a typical hydraulic fluid (A)..... | 1019 |
| Nonflammable hydraulic fluid (A)..... | 1007 |
| AIRPLANE INSTRUMENTS | |
| Electrical system for aircraft flowmeters (A)..... | 363 |
| New automatic pilot (A)..... | 236 |
| A remote-indicating pressure gage for aircraft (A)..... | 636 |
| AIRPLANE LANDING GEARS | |
| Track-tread landing gear (A)..... | 686 |
| AIRPLANE WINGS | |
| The flutter of a uniform wing with tip weights (A)..... | 36 |
| AIRPLANES. <i>See also</i> Helicopters | |
| Cockpit-design problems of high-altitude high-speed aircraft..... | 883 |
| Design for environment (A)..... | 998 |
| Heat anti-icing for the airlines (A)..... | 836 |
| Icing flight tests of the Lockheed P-1V (A)..... | 837 |
| Jet fighter airplane (A)..... | 26 |
| Largest land airplane (A)..... | 145 |
| Lightweight airplane (A)..... | 687 |
| Oscillating-piston meters for fuel consumption in aircraft (A)..... | 458 |
| Parasite jet fighter (A)..... | 686 |
| What is an optimum anti-icing design? (A)..... | 836 |
| AIRPORTS | |
| Airport traffic (A)..... | 444 |
| ALCOHOL. <i>See</i> Fuels | |
| ALDRIN, E. E. | |
| Appointed to Congressional Aviation Policy Board..... | 93 |
| ALLEN, C. M. | |
| To receive John Fritz Medal..... | 933 |
| ALLEN, HENRY BUTLER | |
| Receives Medal for Merit..... | 854 |
| ALLEN, R. K. | |
| Developments in Kraft-process recovery-unit design and performance (A)..... | 551 |
| ALLOYS. <i>See also</i> Aluminum Alloys, Steel Alloys | |
| Freight-car construction (A)..... | 254 |
| Japanese magnetic materials (A)..... | 153 |
| Permanent-magnet material..... | 671 |
| Weight reduction—freight cars (A)..... | 254 |

| ISSUE | PAGE NUMBERS |
|-----------|--------------|
| January | 1-108 |
| February | 109-190 |
| March | 191-290 |
| April | 291-394 |
| May | 395-500 |
| June | 501-576 |
| July | 577-656 |
| August | 657-724 |
| September | 725-788 |
| October | 789-864 |
| November | 865-954 |
| December | 955-1050 |

| | |
|--|-------------------------------|
| ALUMINUM | |
| Development of a high-speed lathe for machining aluminums (A)..... | 161 |
| Engineering for aluminum-alloy castings (D)..... | 773 |
| ALUMINUM ALLOYS | |
| Engineering for aluminum-alloy castings..... | 505 |
| AMBROSE, E. R. | |
| Heat-pump installations (D)..... | 258 |
| AMBRONIS, E. E. | |
| Analysis of tests on positive-displacement meters for liquid hydrocarbons (A)..... | 840 |
| AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE | |
| Elects officers..... | 274 |
| Symposiums featured at centennial celebrations..... | 853 |
| AMERICAN INSTITUTE OF INDUSTRIAL ENGINEERS | |
| Industrial engineers set up new society..... | 482 |
| AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS | |
| Joint Fuels Conference with ASME..... | 780, 851 |
| AMERICAN INSTITUTE OF PHYSICS | |
| Announces new physics magazine..... | 569 |
| AMERICAN SOCIETY FOR ENGINEERING EDUCATION | |
| Mechanical Engineering Division simplifies structure..... | 783 |
| AMERICAN SOCIETY OF MECHANICAL ENGINEERS | |
| Applied Mechanics Division, annual conference on applied mechanics..... | 382, 483, 779 |
| Aviation Division, conference at Dayton, Ohio..... | 569, 716, 946 |
| Awards. <i>See</i> Honors and Awards | |
| Boiler Code. <i>See</i> Boiler Code | |
| Budget, 1948-1949..... | 647 |
| Codes. <i>See</i> under subject of code | |
| Committees | |
| Boiler Code Committee appoints honorary members..... | 709 |
| Boiler Code Committee meeting, Boston, Mass..... | 485 |
| Boiler Feedwater Committee seeks comments on revised code..... | 648 |
| Education Committee symposium on junior problems..... | 92 |
| Junior Committee completes first year..... | 93 |
| Junior Committee meets..... | 491 |
| Nominating Committee..... | 715 |
| Prime Movers Committee (Ed)..... | 397 |
| Constitution, by-laws, and rules; proposed amendments..... | 714 |
| Actions..... | 712 |
| Executive Committee actions..... | 278, 384, 487, 713, 784, 1039 |
| New members, 1948..... | 61 |
| Report for 1947..... | 41 |
| Fuels Division, Joint fuels conference..... | 780, 851 |

| | |
|--|--|
| AMERICAN SOCIETY OF MECHANICAL ENGINEERS (continued) | |
| Headquarters news notes..... | 379, 480 |
| Hydraulic Division organizes new committee..... | 272 |
| Industrial Instruments and Regulators Division co-operating in third instrument conference..... | 718 |
| National conference contributes to success of 1948 instrument fair..... | 946 |
| Junior Forum..... | 91, 175, 276, 383, 488, 858, 947, 1041 |
| Engineering Societies Personnel Service (C)..... | 383 |
| Management Division | |
| Sponsors technical sessions at materials handling show..... | 1036 |
| To conduct price survey..... | 783 |
| Materials-handling conference..... | 273 |
| Materials Handling Division sponsors technical sessions at materials handling show..... | 1036 |
| Meetings | |
| Annual Conference on Applied Mechanics..... | 483 |
| Annual Meeting, 1947..... | 49 |
| Annual Meeting, 1948..... | 778, 850, 934 |
| Annual Meeting publicity..... | 271, 719 |
| Annual Meeting session to be televised and broadcast..... | 934 |
| Aviation Conference..... | 716 |
| Business meeting, semi-annual, 1948..... | 715 |
| Calendar of meetings, 93, 173, 274, 378, 480, 566, 650, 717, 780, 851, 938, Fall meeting, 1948, Portland, Ore..... | 568, 649, 705, 942 |
| Novel meeting procedure devised by Detroit juniors..... | 490 |
| Oil and Gas Power Conference..... | 481, 717 |
| Regional Administrative Committee meetings..... | 273 |
| Semi-Annual Meeting, Milwaukee, 1948..... | 375, 471, 641 |
| Spring Meeting, 1948, New Orleans..... | 83, 169, 477 |
| What it takes to organize an ASME Annual Meeting..... | 171 |
| Members | |
| Junior or associate? (Ed)..... | 193 |
| Services to ASME members (C)..... | 464 |
| Membership | |
| Candidates..... | 106, 188, 288, 392, 498, 574, 654, 722, 788, 864, 952, 1046 |
| Council report for 1947..... | 41 |
| Neurology..... | 108, 190, 290, 394, 500, 576, 658, 724, 788, 864, 954, 1050 |
| News..... | 83, 169, 270, 375, 471, 565, 641, 705, 778, 850, 934, 1036, 1045 |
| Obituaries..... | 1045 |
| Officers | |
| Elected by letter ballot..... | 949 |
| How the ASME selects its officers..... | 378 |
| Nominated for 1948-1949..... | 709 |
| Nominating committee, 1948..... | 86 |
| Oil and Gas Power Division annual conference..... | 381, 481, 649, 717 |
| Petroleum Conference, 1948..... | 1037 |
| Petroleum Division organized..... | 717 |
| Petroleum Mechanical Engineering Conference..... | 781 |
| Publications | |
| ASME membership list planned..... | 484 |
| ASME publication plan (Ed)..... | 111 |
| ASME Society Records sent on request..... | 174 |
| ASME Transactions (Ed)..... | 792 |
| Annual Meeting preprint list..... | 38 |
| Applied Mechanics Reviews, a new monthly review journal..... | 272 |
| Constitution and By-Laws revised; now available..... | 482 |
| Council report for 1947..... | 41 |
| Coupon books for ordering ASME papers..... | 40 |
| Diesel fuel oil lectures published..... | 275 |
| Engineering Societies Yearbook..... | 377 |
| Engineering Societies Yearbook (BR)..... | 470 |
| Help us to serve you promptly..... | 852 |
| How to Find It (Ed)..... | 503 |
| Indexes available upon request..... | 84 |
| Local ASME news..... | 949 |
| Material Specifications Addenda to Boiler Code..... | 482 |
| Mechanical Catalog and Directory..... | 851 |
| Mechanical Engineering cited as "good reading"..... | 377 |

| | |
|--|--|
| AMERICAN SOCIETY OF MECHANICAL ENGINEERS (continued) | |
| Mechanical Engineering has new release date..... | 1043 |
| New publication plan..... | 1042 |
| News notes..... | 274 |
| Oil-engine power cost report for 1946.. | 174 |
| Preprints of Semi-Annual Meeting..... | 646 |
| Reader-interest survey (Ed)..... | 194 |
| Recent standards and codes..... | 933 |
| Subscribe now (Ed)..... | 4 |
| Translation of German book, "The dynamics of automatic controls"..... | 486 |
| Sections | |
| Activities..... | |
| 280, 385, 491, 570, 650, 720, 949, 1043 | |
| Meetings..... | |
| 103, 186, 285, 389, 720, 860, 950, 1045 | |
| News..... | 179 |
| Recorded ASME speakers available for section programs..... | 177 |
| Savannah section leads in membership drive..... | 487 |
| Standardization Committee procedures simplified..... | 1040 |
| Student Branches | |
| Activities..... | 281, 387, 389, 492, 949, 1044 |
| Annual student luncheon..... | 85 |
| News..... | 182 |
| Regional Student Conference prize winners..... | 856 |
| Regional Student Conferences..... | 282 |
| Student branch conferences..... | 855 |
| Technical Digest of ASME papers..... | 35, 157, 248, 354, 452, 549, 628, 694, 768, 832, 912, 1012 |
| Textile Division, Annual Meeting..... | 275 |
| Woman's Auxiliary..... | 84 |
| Wood Industries Division, 1948 national conference..... | 782, 1037 |
| AMERICAN STANDARDS ASSOCIATION | |
| Seeks financial aid from industry..... | 649 |
| ANALYSIS. See Electric Analogy, Spectroscopic Analysis, Structures | |
| ANSOFF, H. O. | |
| Stability of linear oscillating systems with constant time lag (A)..... | 1015 |
| ANTI-FRICTION BEARINGS | |
| Ball bearing slides (A)..... | 454 |
| ANTI-ICING. See Ice | |
| APPLEY, L. A. | |
| Appointed AMA president..... | 716 |
| APPLIED MECHANICS | |
| International congress to be held..... | 486 |
| Polygonal approximation method in the hodograph plane (A)..... | 770 |
| APTITUDE TESTS. See Vocational Guidance | |
| ARBITRATION. See Industrial Relations | |
| ARMITAGE, J. B. | |
| Director at large..... | 62 |
| Influence of steel hardness in face-milling (A)..... | 1018 |
| Straight-sided splines..... | 738 |
| ARTIFICIAL LIMBS. See Prosthetic Devices | |
| ASH HANDLING | |
| Combustion ash collection for the small power plant (A)..... | 1015 |
| ASTRONOMY | |
| Fast astronomical plates (A)..... | 147 |
| ATMOSPHERIC POLLUTION. See also Dust, Smoke | |
| Stability of the atmosphere and its influence on air pollution..... | 407 |
| ATOMIC ENERGY | |
| Atom-bomb explosion (A)..... | 150 |
| Atom-bomb radiation (A)..... | 546 |
| Atomic aircraft engines (A)..... | 755 |
| Atomic energy and medicine (A)..... | 242 |
| Atomic energy and the engineer..... | 8 |
| Atomic energy commission realigns headquarters staff duties..... | 852 |
| Atomic-energy exhibit (A)..... | 235 |
| Atomic energy fellowships offered by National Research council..... | 487 |
| Atomic energy levels (A)..... | 674 |
| Atomic-energy program (A)..... | 820 |
| Atomic power reactor (A)..... | 909 |
| Atomic research (A)..... | 756 |
| British atomic-research center (A)..... | 825 |
| Electrostatic accelerator (A)..... | 691 |
| The industrial application of nuclear energy..... | 295 |
| Linear accelerator (A)..... | 345 |
| Nuclear physics charts (A)..... | 1010 |
| Some engineering problems of atomic-energy research..... | 729 |
| AURAND, HENRY S. | |
| Appointed to Interdepartmental Committee of Research and Development..... | 480 |
| AUTOMATIC CONTROL. See also Servo-mechanisms | |
| Automatic control of turbojet engines (A)..... | 914 |
| The dynamics of automatic controls (BR)..... | 843 |
| Laboratory analogs for electric furnaces (A)..... | 919 |
| A recent development in automatic lathe control (A)..... | 461 |
| Stability of linear oscillating systems with constant time lag (A)..... | 1015 |
| Tensorial analysis of control systems (A)..... | 841 |
| Translation of German book, "The dynamics of automatic controls"..... | 486 |
| AUTOMOBILE ENGINES | |
| Automotive gas turbines (A)..... | 692 |
| AUTOMOBILES. See Automotive Industry | |
| AUTOMOTIVE INDUSTRY | |
| Glimpse of engineering in industry..... | 797 |
| Rubber in the automotive industry (A)..... | 630 |
| AVIATION | |
| Army and Air Force research (A)..... | 232 |
| Crash injury research (A)..... | 439 |
| New York City plans air exposition..... | 569 |
| Orville Wright..... | 581 |
| The present and future of the aircraft industry..... | 211 |
| Supersonic-aircraft pilots (A)..... | 824 |
| Supersonic speed (Ed)..... | 580 |
| Thunderstorm chart..... | 679 |
| U. S. Air Force (A)..... | 906 |
| B | |
| BAFFLES. See Heat Exchangers | |
| BAGASSE. See Fuels | |
| BAGSAR, A. B. | |
| Development of cleavage fractures in mild steels (A)..... | 255 |
| The fracture of metals (BR)..... | 774 |
| BAILEY, E. G. | |
| American industries built upon engineering and science can save the world..... | 891 |
| The engineer and internationalism—power industry in this country an example of his effective method of approach..... | 399 |
| President of ASME for 1948..... | 51 |
| BAKER, THOMAS E. | |
| Bankruptcy of "internationalist" thinking (BR)..... | 336 |
| BAKMETEFF, B. A. | |
| Paper wins ASCE award..... | 93 |
| BALL BEARINGS. See Antifriction Bearings | |
| BALLARD, R. G. | |
| Electrical system for aircraft flowmeters (A)..... | 363 |
| BALLOONS. See High-Altitude Research | |
| BANGS, JOHN R. | |
| Improving supervision (BR)..... | 367 |
| Personnel administration (BR)..... | 467 |
| What the Labor-Management Relations Act of 1947 means to executives..... | 226 |
| BARRELS | |
| Performance characteristics of tight oak-laminated stave and solid-stave barrels (A)..... | 359 |
| BATT, WILLIAM L. | |
| European repayment plan (A)..... | 337 |
| BAUMEISTER, THEODORE | |
| Distilling-plant economy (D)..... | 77 |
| BAXTER, M. L., JR. | |
| Curvature-acceleration relations for plane cams (A)..... | 456 |
| BEAMS | |
| Impact of a mass on a damped elastically supported beam (A)..... | 916 |
| A numerical solution for the torsion of hollow sections (A)..... | 160 |
| The partitioning of matrices in structural analysis (A)..... | 453 |
| Vibration of a beam with concentrated mass, spring, and dashpot (A)..... | 37 |
| Vibration of a cantilever beam with prescribed end motion (A)..... | 452 |
| BEAN, H. S. | |
| Heads new NBS section..... | 933 |
| BEARINGS. See also Antifriction Bearings | |
| Dynamic capacity of roller bearings (A)..... | 1015 |
| Gridded Bearings (A)..... | 32 |
| The hydrosphere—a new hydrodynamic bearing (A)..... | 37 |
| Lubrication phenomena. Use of transparent models for purposes of demonstration and study..... | 589 |
| BEARINGS (continued) | |
| Measurements of the combined frictional and thermal behavior in journal-bearing lubrication (A)..... | 457 |
| Nonmetallic bearings I—Some characteristics of soft rubber as a material for water-lubricated bearings..... | 599 |
| II—Some general information about lignum-vitae bearings..... | 600 |
| III—Properties and applications of laminated phenolic bearings..... | 601 |
| IV—Reduction of wear in rubber stern bearings by flow-controlled continuous-film method..... | 607 |
| Oil flow and temperature relations in lightly loaded journal bearings (A)..... | 769 |
| Synthetic-spinel jewels (A)..... | 24 |
| Zinc-base bearings (A)..... | 447 |
| BEDNAR, A. | |
| Nonmetallic bearings I—Some characteristics of soft rubber as a material for water-lubricated bearings..... | 599 |
| BENSCHOTER, S. U. | |
| The partitioning of matrices in structural analysis (A)..... | 453 |
| BERARD, SAMUEL J. | |
| Engineering Societies Yearbook (BR)..... | 470 |
| BERGELIN, O. P. | |
| Heat transfer and fluid friction during viscous flow across banks of tubes (A)..... | 252 |
| BERNARDO, EVERETT | |
| Temperature measurements and combustion efficiency in combustors for gas-turbine engines (A)..... | 35 |
| BERNER, R. L. | |
| What is an optimum anti-icing design? (A)..... | 836 |
| BERYLLIUM | |
| Beryllium uses (A)..... | 448 |
| BEST, PHILIP F. | |
| Combustion ash collection for the small power plant (A)..... | 1015 |
| BIBLIOGRAPHIC RESEARCH | |
| Use of a technical library..... | 987 |
| BIBLIOGRAPHIES | |
| Rare bibliographies (A)..... | 618 |
| BILHUBER, P. H. | |
| High-frequency molding method applied to compound curvatures in wood..... | 213 |
| BILLMYER, CARROLL D. | |
| "Democracy and progress" (C)..... | 923 |
| Our way of life (D)..... | 699 |
| BIOMECHANICS | |
| Cockpit-design problems of high-altitude high-speed aircraft..... | 883 |
| Conference on industrial physiology and human engineering..... | 482 |
| Human bone properties (A)..... | 827 |
| BLACKALL, FREDERICK S., JR. | |
| Mutual survival (BR)..... | 468 |
| BLADE DEPOSITS. See Steam Turbines | |
| BLAST FURNACES. See Industrial Furnaces, Iron and Steel Manufacture | |
| BLAU, R. E. | |
| A mechanical analyzer for the solution of vibration problems of a single degree of freedom (A)..... | 257 |
| BLOWERS | |
| Centrifugal blowers for two-cycle Diesel engines (A)..... | 834 |
| BOATS. See also Ships | |
| Laminating for small-boat construction (A)..... | 634 |
| BOELTER, L. M. K. | |
| Engineering research..... | 978 |
| BOERA, ALVARO R. | |
| Main Award..... | 68 |
| BOHNENBLUST, H. FREDERIC | |
| Some properties of a mechanical model of plasticity (A)..... | 453 |
| BOILER CODE OF ASME | |
| Adopted by Puerto Rico..... | 84 |
| Errata..... | 560 |
| Interpretations..... | 82, 165, 267, 465, 556, 640, 703, 777, 846, 1029 |
| Material Specifications addenda available..... | 482 |
| Proposed revisions and addenda to suggested rules for the care of power boilers..... | 557 |
| Proposed rules for lined vessels..... | 485 |
| Revisions and Addenda..... | 923 |
| 167, 268, 371, 465, 557, 704, 847, Spanish edition of ASME Power Boiler Code..... | 708 |
| Third public hearing on section VIII..... | 84 |
| BOILER CORROSION | |
| Acid-cleaning boilers (A)..... | 28 |
| BOILER FURNACES | |
| Developments in burning pulverized coal..... | 967 |

| | | | | | | | | |
|------------------------------------|---|----------|-------------------|--|----------|---|--|------|
| BOILER FURNACES (continued) | | | BOYD, JOHN | | | CALCULATING MACHINES (continued) | | |
| | Furnaces for by-product fuels (A)..... | 37 | | Lubrication phenomena: use of trans- | 589 | | Electronic memory (A)..... | 450 |
| 457 | Southwark Station boiler air-flow model | 1020 | | parent models for purposes of demon- | | | Heat-flow analyzer (A)..... | 541 |
| | tests and operation results (A)..... | | | stration and study..... | | | Improved techniques in the study of | |
| | BOILER OPERATION | | | Nonmetallic bearings. III-Properties | 601 | | engine firing orders using the vector- | 833 |
| 599 | Combustion engineering (BR)..... | 469 | | and applications of laminated phenolic | | | scope (A)..... | 448 |
| | BOILER TESTS | | | bearings..... | 769 | | Logarithmic dividing machine (A)..... | 975 |
| 600 | Developments in burning pulverized | 967 | | Oil flow and temperature relations in | | | The status of high-speed digital com- | |
| 601 | coal..... | | | lightly loaded journal bearings (A).... | | | puting systems..... | |
| | Southwark Station boiler air-flow model | 1020 | | BOYD, T. A. | 797 | | CALDWELL, L. E. | |
| 607 | tests and operation results (A)..... | | | Glimpse of engineering in industry.... | | | Nonmetallic bearings. III-Properties | 601 |
| | BOILER TUBES | 830 | | BRADT, M. | 250 | | and applications of laminated phenolic | |
| | Boiler tubes fouling (A)..... | | | Oil elimination from feedwater (A).... | | | bearings..... | |
| | BOILERS. See also Locomotive Boilers | | | BRAKES | | | CALDWELL, W. F. | 256 |
| 769 | Developments in Kraft-process recovery- | 551 | | The operating characteristics and re- | | | A subsaturation reheat cycle (A)..... | |
| 24 | unit design and performance (A)..... | | | quirements of drawworks brake equip- | 921 | | CALORIMETRY | |
| 447 | The gas turbine with a waste-heat | 515 | | ment (A)..... | 869 | | Electronic calorimeter (A)..... | 1011 |
| | boiler..... | | | Powdered-metal friction material..... | | | CAMERAS. See Photography | |
| | BOILERS—ELECTRIC | | | BRAY, CHARLES W. | 1048 | | CAMPBELL, LEVIN H., JR. | |
| 599 | High-voltage electric boiler (A)..... | 247 | | Obituary..... | | | The study of missiles resulting from ac- | 264 |
| | BOMBS. See Ordnance | | | BREWSTER, O. C. | 919 | | cidental explosions (BR)..... | |
| | BOODBERG, A. | | | The use of Bourdon tubes in pneumatic | | | CAMPBELL, W. E. | |
| 453 | Stability of SR-4 electric-strain gages | 364 | | pressure transmitters (A)..... | | | Studies in boundary lubrication—II. | |
| 470 | and methods for their waterproofing | | | BRIDGES | 486 | | Influence of adsorbed moisture films | |
| | and protection in field service (A).... | | | International congress to be held..... | 622 | | on coefficient of static friction between | 158 |
| | BOOK REVIEWS | | | Military bridges (A)..... | | | lubricated surfaces (A)..... | |
| | Air conditioning..... | 367 | | BRIEFING THE RECORD | 17, 143, | | CAMS | |
| 252 | American arbitration, its history, func- | 926 | | 338, 436, 535, 616, 684, 755, 820, 898, | 998 | | An analysis of the dynamic forces in a | |
| | tions and achievements..... | | | BROACHES AND BROACHING | | | cam-driven system (A)..... | 161 |
| | American miracle: the story of war con- | 81 | | Broach requirements for spline shafts | 680 | | Curvature-acceleration relations for | 456 |
| 35 | struction around the world..... | | | and fittings..... | | | plane cams (A)..... | |
| | Combustion engineering..... | 469 | | BROADLEY, PETER R. | 248 | | CAN MAKING | 315 |
| | Data book for civil engineers..... | 561 | | The coal-burning gas-turbine loco- | | | Engineering the tin can..... | |
| | Democracy and progress..... | 883 | | otive (A)..... | | | CARBIDES | |
| 836 | Design of metal-cutting tools..... | 702 | | BROCK, J. E. | | | High-temperature metal (A)..... | 239 |
| | Diesel fuel oils—production, characteris- | 924 | | Theory of the damped dynamic vibra- | | | Tungsten-carbide research (A)..... | 621 |
| 448 | tics, and combustion..... | 843 | | tion absorber for inertial disturbances | 916 | | CARBONYL-IRON POWDERS | |
| | The dynamics of automatic controls..... | 996 | | (A)..... | | | Carbonyl-iron powders (A)..... | 831 |
| | Economics: an introductory analysis..... | 844 | | BROOKS, M. E. | | | CARD, FREDERIC MUNROE | |
| | Electric traction for cranes..... | 700 | | Magnesium castings—their production | 425 | | Obituary..... | 1048 |
| 1015 | Engineering applications of fluid me- | 470 | | and use..... | | | CARLSON, AXEL FOLKE | |
| | chanics..... | 842 | | BROWN, BRUCE K. | 421 | | Obituary..... | 1048 |
| | Engineering Societies Yearbook | 774 | | Future fuels—liquid and gaseous..... | | | CARMAN, C. H., JR. | |
| 987 | The failure of metals by fatigue..... | 925 | | BROWN, E. CARY | 996 | | "Accent on youth" (C)..... | 90 |
| | The fracture of metals..... | 263 | | The new look in economics (BR)..... | | | CARRIER, G. F. | |
| 618 | Freedom and the administrative state..... | 701 | | BROWN, F. BARTON | 160 | | The interaction of discontinuity surfaces | 549 |
| | Gas-turbine construction..... | 264 | | The Hydrodynamics Laboratory of the | | | in plastic fields of stress (A)..... | |
| 213 | Getting along with unions..... | 843 | | California Institute of Technology (A) | 61 | | CARBON, R. W. | |
| | The guarantee of annual wages..... | 367 | | BROWN, J. CALVIN | | | Stress-relief-hardening of beryllium | 163 |
| | Heat conduction with engineering and | 561 | | Regional vice-president..... | | | copper (AC)..... | |
| | geological application..... | 263 | | BROWN, RALPH | 1034 | | CARTER, PRESTON D. | |
| 923 | Improving supervision..... | 1025 | | Medal of Honor of the IRE..... | | | A rebel yells (BR)..... | 276 |
| 699 | Industrial applications of infrared..... | 368 | | BROWN, W. F., JR. | | | CASTING. See Foundry Practice | |
| | Industrial health engineering..... | 531 | | Strength and failure characteristics of | 918 | | CASTINGS. See also Foundry Practice | |
| | Ingenieur Baumeister einer besseren | 1027 | | metal membranes in circular bulging | 158 | | Engineering for aluminum-alloy castings | 773 |
| 883 | Welt..... | 467 | | (A)..... | | | (D)..... | |
| | Jet propulsion progress..... | 468 | | Strength and failure characteristics of | | | Magnesium castings—their production | 425 |
| 482 | Labor-management conflict or co-opera- | 1026 | | thin circular membranes (A)..... | 832 | | and use..... | |
| 827 | tion?..... | 702 | | BROWNE, K. A. | | | CAVITATION | |
| | Mainspring: the story of human pro- | 467 | | Thermal environment of railroad passen- | | | Cavitation characteristics and infinite | |
| 468 | gress and how not to prevent it..... | 468 | | ger cars (A)..... | | | aspect ratio characteristics of a | |
| | Methods-time measurement..... | 1027 | | BRUNOT, A. W. | 696 | | hydrofoil section (A)..... | 632 |
| | Modern organic finishes..... | 702 | | Thermal-contact resistance of laminated | | | Laboratory investigations of the mecha- | 840 |
| | Mutual survival..... | 276 | | and machined joints (A)..... | 773 | | nism of cavitation (A)..... | |
| 257 | The new men of power, America's labor | 775 | | BUCKLAND, FLORENCE F. | 696 | | CERAMICS | |
| | leaders..... | 842 | | Engineering for aluminum-alloy castings | | | Ceramic-coated molybdenum (A)..... | 1004 |
| | Panel heating and cooling analysis..... | 776 | | (D)..... | | | Ceramic-coated steel (A)..... | 349 |
| | Personnel administration..... | 80 | | Thermal-contact resistance of laminated | | | Photographic finishes (A)..... | 339 |
| | Powder metallurgy: its physics and pro- | 337 | | and machined joints (A)..... | | | CHANG, CHE-TYAN | |
| | ductivity..... | 265 | | BUCKLEY, F. D. | | | The shape of a piston ring in its unre- | 1015 |
| 834 | Power from the wind..... | 1024 | | Experimental combustion of pulverized | | | strained state (A)..... | |
| | Principles of servomechanisms..... | 163 | | coal at atmospheric and elevated pres- | 838 | | CHEMICAL PROCESSES | |
| | Psychology and military proficiency..... | 278 | | sures (A)..... | 258 | | Mechanical activation—a newly de- | 36 |
| | Radiant heating..... | 80 | | BUDENHOLZER, R. A. | 932 | | veloped chemical process (A)..... | |
| 634 | A rebel yells..... | 337 | | Heat-pump installations (D)..... | | | CHEYNEY, LAVERNE E. | 675 |
| | Saga in steel and concrete..... | 265 | | New director of Midwest Power Con- | | | Aircraft hydraulic packings..... | |
| | Scale models in hydraulic engineering..... | 1024 | | ference..... | | | Frictional characteristics of O-rings with | 1019 |
| 978 | Scientific and technical abbreviations, | | | BULLARD, E. P. | 461 | | a typical hydraulic fluid (A)..... | |
| | signs and symbols..... | 818 | | A recent development in automatic lathe | | | CHILTON, E. G. | 453 |
| 68 | Scientific blacksmith—an autobiography | 469 | | control (A)..... | | | Large deformations of an elastic solid (A) | |
| | Scientific man vs power politics..... | 264 | | BURNERS | 687 | | CHRISTENSEN, J. M. | |
| | Scientific management..... | 1042 | | Gas-oil heating unit (A)..... | | | A method for the analysis of complex | 914 |
| 53 | The shipbuilding business in the United | 163 | | Mechanisms of combustion and their re- | 364 | | activities and its application to the job | |
| | States of America..... | | | lation to oil-burner design (A)..... | | | of the Arctic aerial navigator (A).... | |
| | Statistical methods in engineering and | 278 | | BURROWS, W. R. | 365 | | CHRISTIE, A. G. | |
| 84 | industry: postwar development..... | 265 | | The basic elastic theory of vessel heads | | | Awarded ASME Lamme Medal..... | 719 |
| 60 | The strange story of the quantum..... | 1028 | | under internal pressure (A)..... | | | Combustion engineering (BR)..... | 469 |
| | Study of missiles..... | 859 | | BUSH, VANNEVAR | 1034 | | Trends in engineering education (BR)... | 1024 |
| 29 | Trends in engineering education, the | 295 | | Awarded medal of the Industrial Re- | 1032 | | Uses of high and low-heat values (A)... | 920 |
| | Columbia experience..... | | | search Institute..... | | | CHUTES. See Coal Handling | |
| 82 | Wind-tunnel testing..... | | | Resigns NME research post..... | | | CITIZENSHIP | |
| | BOOKS | | | BUTT, HOWARD | 1048 | | The education of professional students | 959 |
| | Books for mechanical engineers, 1947 | | | Obituary..... | | | for citizenship..... | 614 |
| 57 | BOOKS RECEIVED IN LIBRARY | 81, 164, | | BY-PRODUCTS. See Petroleum By-Prod- | | | Engineers and politics..... | 262 |
| 35 | 369, 470, 562, 639, 702, 776, 844, 927, | 1028 | | ucts, Wood Waste | | | The habit of community service (C).... | 699 |
| | BORING, MAYNARD M. | | | | | | Our way of life (D)..... | |
| 23 | Is there elbow room in engineering?... | 859 | | | | | Teaching our way of life—program of | |
| 8 | BORST, LYLE B. | | | | | | ASME Engineers Civic Responsibility | 404 |
| | The industrial application of nuclear | 295 | | | | | Committee for 1948..... | |
| | energy..... | | | | | | | |
| | BORUCKI, R. B. | | | | | | | |
| | Weight reduction—freight cars (A).... | 254 | | | | | | |
| | BOSTON, O. W. | | | | | | | |
| | An evaluation of cylindrical grinding | 770 | | | | | | |
| | performance (A)..... | | | | | | | |

- CIVIL ENGINEERING**
Data book for civil engineers (BR)..... 561
Informal international conference held at dedication of headquarters of Danish Civil Engineers..... 567
- CIVILIZATION**
Engineers, builders of a better world (BR)..... 1025
Science and the whole man..... 113
The status of technology as related to the questions of today..... 888
The whole man (Ed)..... 111
- CLARK, D. S.**
Discussion of the forces acting in tension impact tests of materials (A)..... 549
- CLARK, R. H.**
Electrification increases productivity of small turret lathes (A)..... 455
- CLARK, WALLACE**
Obituary..... 660
- CLEMENT, L. M.**
Product design for economical manufacture (A)..... 456
- CLUTCHES**
Magnetic fluid clutch (A)..... 442
Powdered-metal friction material..... 869
- COAL. See also Pulverized Coal**
Bituminous coal facts and figures (A)..... 999
British coal production (A)..... 25
Coal (A)..... 147
Fuels performance at Port Washington Station (A)..... 837
- COAL—GASIFICATION**
Underground gasification—an account of experiments on coal conducted at Gorgas, Ala..... 127
- COAL HANDLING**
Flow of coal in chutes..... 313
- COAL MINING**
Centrifugal stowing machine (A)..... 343
Continuous mining machine (A)..... 619
- COCHRAN, DAVID**
Pi Tau Sigma Medal..... 68
- COCKPITS. See Airplanes**
- CODY, CLIFFORD S.**
Automatic control of turbojet engines (A)..... 914
- COKE**
Underground gasification—an account of experiments on coal conducted at Gorgas, Ala..... 127
- COKYUCUL, N. M.**
A mechanical analyzer for the solution of vibration problems of a single degree of freedom (A)..... 257
- COLBURN, A. P.**
Heat transfer and fluid friction during viscous flow across banks of tubes (A)..... 252
- COLE, ARTHUR WILLIAMS**
Obituary..... 1048
- COLIN, E. C. JR.**
A numerical solution for the torsion of hollow sections (A)..... 160
- COLLIER, S.**
Modern quality control (A)..... 460
- COLLIER, WILLIAM R.**
Undergraduate Award..... 68
- COLPITTS, E. H.**
Receives Cresson Medal..... 933
- COMBUSTION**
Combustion engineering (BR)..... 469
Combustion studies using the Golay photothermal detector with an infrared monochromator (A)..... 697
Determination of gas-turbine combustion-chamber efficiency by chemical means (A)..... 35
Energy-release rates in furnace cavity (C)..... 699
Gas-turbine plant combustion chamber efficiency (A)..... 35
Generalized thermodynamics of high-temperature combustion (A)..... 840
High-output combustion of ethyl alcohol and air (A)..... 157
Ignition and flame stabilization in gases (A)..... 158
The influence of reaction interface extension in the combustion of gaseous fuel constituents (A)..... 157
Mechanisms of combustion and their relation to oil-burner design (A)..... 364
Symposium planned by U. of Wisconsin. Temperature measurements and combustion efficiency in combustors for gas-turbine engines (A)..... 35
- COMBUSTION CALCULATIONS**
Definitions of heats of combustion of a fuel and current methods for their determination (A)..... 920
Energy-temperature relations in the COMBUSTION CALCULATIONS (continued) combustion of fuels in gas turbines (A)..... 920
Uses of high and low heat values (A)..... 920
- COMPRESSORS**
Axial-flow compressors for gas turbines (A)..... 159
Centrifugal compressors (A)..... 23
Conversion of pipe lines from oil to gas transmission; the "Big Inch" and "Little Big Inch" pipe lines..... 733
A method of correlating axial-flow compressor cascade data (A)..... 159
A study of the supersonic axial-flow compressor (A)..... 917
- COMPTON, WILSON**
Engineering in an era of big science and big business..... 963
- CONCRETE**
Chrome-base concrete (A)..... 451
- CONSTRUCTION SPECIFICATIONS INSTITUTE**
Specifications institute organized..... 854
- CONWAY, H. D.**
Bending of rectangular plates subjected to a uniformly distributed lateral load and to tensile or compressive forces in the plane of the plate (A)..... 1014
The bending of symmetrically loaded circular plates of variable thickness (A)..... 365
Note on the bending of circular plates of variable thickness (A)..... 917
- COOLEY, MORTIMER E.**
Scientific blacksmith—an autobiography..... 80
- COOLING**
Cockpit-design problems of high-altitude high-speed aircraft..... 883
- COOLING TOWERS**
Cooling-tower analysis (A)..... 1013
- COPP, EARL MORSE**
Obituary..... 1048
- CORES. See Die Casting**
- CORNET, I.**
Fracture of gray-cast-iron tubes under biaxial stresses (A)..... 918
- CORRIGAN, G. L.**
Drill pipe corrosion problems (A)..... 921
- CORROSION. See also Boiler Corrosion, Metal Coating, Tin Plate**
Corrosion testing (A)..... 152
Drill pipe corrosion problems (A)..... 921
Protein corrosion inhibitor (A)..... 548
- COSLER, V. A.**
Advances in rubber during 1947..... 307
- COTTRELL, R. B.**
Freight-car truck progress (A)..... 253
- COUPLERS**
The Association of American Railroads standard car coupler (A)..... 454
- CRAMER, ROBERT, JR.**
Centrifugal blowers for two-cycle Diesel engines (A)..... 834
- CRYOGENICS. See Low Temperatures**
- CULLIMORE, ALLAN R.**
Honored by Stevens Institute..... 271
- CUTTER, WALTER A.**
Personal factors for developing safety consciousness (A)..... 633
- CUTTING FLUIDS. See Metal Cutting**
- CYCLOTRONS**
Nevis cyclotron (A)..... 756
Synchrocyclotron (A)..... 243
Synchrocyclotron pole tips (A)..... 911
- CYLINDERS**
Effect of bending rigidity of stringers upon stress distribution in reinforced monocoque cylinder under concentrated transverse loads (A)..... 160
Heat transfer through thick insulation on cylindrical enclosures (A)..... 251
A new method of making high-speed compression tests on small copper cylinders (A)..... 453
- DAHL, ANDREW I.**
Thermocouple pyrometers for gas turbines (A)..... 636
- DAILY, JAMES W.**
Cavitation characteristics and infinite aspect ratio characteristics of a hydrofoil section (A)..... 632
- DALTON, A. G.**
Some engineering aspects of quality control..... 205
- DAMPING. See Vibration**
- DANIELS, GEORGE C.**
Prevention of turbine-blade deposits (A)..... 604
- DASHEFSKY, G. J.**
Improved techniques in the study of engine firing orders using the vectorscope (A)..... 833
- DAVIES, CLARENCE E.**
Awarded honorary degree..... 715
The difficulties young men contend with..... 815
- DAVIS, E. F.**
Studies in fly-ash erosion (A)..... 1016
- DAVIS, ED T.**
Repairs hydro adjustable blade turbines by welding (A)..... 912
- DAVIS, EVAN A.**
The effect of size and stored energy on the fracture of tubular specimens (A)..... 454
A generalized deformation law (A)..... 454
- DAVIS, H. E.**
Behavior of steel under biaxial stress as determined by tests on tubes (A)..... 550
- DAVIS, HARVEY N.**
Biography..... 72
Honorary membership..... 70
Honored by Stevens Institute..... 271
- DAVIS, HUNT**
A method of correlating axial-flow compressor cascade data (A)..... 159
- DAVIS, R. F.**
The removal of aldehydes from Diesel exhaust gas (A)..... 460
- DE FLOREZ, LUIS**
Engineering and the medical sciences..... 661, 1022
- DEFORMATION. See also Plasticity**
A generalized deformation law (A)..... 454
Large deformations of an elastic solid (A)..... 453
- DE LA MATER, R. GRIFFIN**
The operating characteristics and requirements of drawworks brake equipment (A)..... 921
- DE LORENZI, OTTO**
Furnaces for by-product fuels (A)..... 37
- DEN HARTOG, JACOB P.**
Richards Award..... 68
- DENIG, FRED**
Synthetic liquid fuels (D)..... 555
- DENMARK**
Informal international conference held at dedication of headquarters of Danish Civil Engineers..... 567
- DESIGN. See Industrial Design, Product Design, also specific subjects**
- DETERGENTS**
Synthetic detergents (A)..... 439
- DEXTER, GREGORY M.**
Professional engineering state laws (C)..... 366
Services to ASME members (C)..... 464
- DIAPHRAGMS**
Plastic deformation of a circular diaphragm under pressure (A)..... 453
- DICKIE, ALEXANDER JACK**
Obituary..... 1048
- DIE CASTING**
The importance of cores in die-casting design..... 609
Magnesium die casting (A)..... 22
- DIESEL ENGINE MANUFACTURERS ASSOCIATION**
Elects 1948 officers..... 190
- DIESEL ENGINES**
Centrifugal blowers for two-cycle Diesel engines (A)..... 834
Diesel application on the inland waterways (A)..... 835
Diesel-engine research (A)..... 626
Diesels in industry (A)..... 835
Diesels on salt water (A)..... 835
Glimpse of engineering in industry..... 797
History of the Diesel engine in America, Oil and Gas Power Conference..... 481
Problems associated with use of Diesel fuels (A)..... 461
The removal of aldehydes from Diesel exhaust gas (A)..... 460
- DIESEL FUEL OIL**
Diesel fuel oils—production, characteristics, and combustion (BR)..... 924
- DISKS. See Rotors**
- DISTILLATION**
Distilling-plant economy (D)..... 75
- DOAN, GILBERT E.**
The habit of community service (C)..... 262
- DODD, ALVIN E.**
Biography..... 72

| | | | | | | |
|----------------------------|--|------------------------|---|-------------------------|--|---|
| DODD, ALVIN E. (continued) | | EDITORIALS (continued) | | ENGINEERING (continued) | | |
| 694 | Gantt and Dodd; an appraisal and an appreciation | 125 | The "Philosophical Magazine" | 957 | power industry in this country an example of his effective method of approach | 399 |
| | Gantt Medal | 68 | Physics Today | 659 | Engineering and the medical sciences | 661 |
| | Productivity—prices and markets | 123 | Precision investment casting | 579 | Engineering in an era of big science and big business | 963 |
| DOMESTIC FURNACES | | | Prime Movers Committee | 397 | Engineers, builders of a better world (BR) | 1025 |
| 833 | Gas-oil heating unit (A) | 687 | Reader-interest survey | 194 | Europe looks to America for technological assistance | 813 |
| | DORN, J. E. | | RESA | 728 | Experimental engineering research methods | 793 |
| 715 | Stress-strain relations for finite elastoplastic deformations (A) | 549 | Roy V. Wright | 727 | Glimpse of engineering in industry | 797 |
| 815 | DORNBRONK, F. L. | | The scientist speaks | 504 | International Conference of Engineering Bodies, London | 486 |
| | Developments in burning pulverized coal | 967 | Subscribe now | 4 | Making the most of engineering (A) | 383 |
| 1016 | Development in Milwaukee of burning pulverized coal (A) | 837 | Supersonic speed | 580 | Mechanical engineering education conference | 434 |
| | DOWNES, M. S. | | The task ahead | 293 | Reports from Germany | 620 |
| 912 | Roller-bearing applications for modern freight cars (A) | 255 | United Nations Day | 791 | Saga in steel and concrete (BR) | 775 |
| 454 | DOYLE, W. L. H. | | The whole man | 111 | The status of technology as related to the questions of today | 888 |
| 454 | Problems associated with use of Diesel fuels (A) | 461 | EDUCATION | 792 | UNESCO and engineering | 819 |
| 550 | DRAKE, R. M., JR. | | Aid to young men (Ed) | 792 | ENGINEERING DATA | |
| | Investigation of the variation of point unit heat-transfer coefficients for laminar flow over an inclined flat plate (A) | 916 | British university graduates (A) | 142 | Data book for civil engineers (BR) | 561 |
| 72 | DRILLS AND DRILLING. See Petroleum-Well Equipment | | The difficulties young men contend with | 815 | ENGINEERING EDUCATION. See Education | |
| 271 | DRIVES | | Du Pont offers seven ME fellowships | 178 | ENGINEERING FOUNDATION | |
| 159 | Mechanical transmissions safety code revision planned | 1032 | Education news and notes | 436 | Announces new officers and projects | 1033 |
| 460 | DRYDEN, HUGH L. | | The education of professional students for citizenship | 959 | Annual report | 89 |
| | Appointed to Interdepartmental Committee of Research and Development | 480 | The education of the engineer | 895 | ENGINEERING PROFESSION. See also Engineers, ECPD | |
| | Wind-tunnel testing (BR) | 163 | Engineering education (D) | 699 | Engineering man power (Ed) | 867 |
| 1022 | DRYING | | Engineering man power (Ed) | 867 | News and notes | 848, 929, 1030 |
| 454 | Flash drying of materials by a new method (A) | 356 | Engineering training | 743 | ENGINEERING PROGRESS SHOW | |
| 453 | ULTRASONIC PAPER DRIER (A) | 353 | ECPD reports increasing use of pre-engineering examinations | 178 | May, 1948, Philadelphia | 178 |
| | DUGGAN, JAMES J. | | Foundry scholarships (A) | 34 | Produced by junior members of the Philadelphia Engineers' Club | 490 |
| | Wetting agents in forestry fire fighting (A) | 359 | Industry develops engineers | 747 | ENGINEERING PUBLICATIONS | |
| 921 | DUNN, GANO | | In-service education (A) | 338 | New literature | 933, 1035 |
| | Elected to honorary membership in ASCE | 1034 | Integrating safety engineering in engineering college curricula (A) | 632 | Philippine engineers start engineering journal | 851 |
| 37 | DURAND, W. F. | | M.I.T. establishes foundry program | 648 | ENGINEERING SOCIETIES. See also Scientific Societies | |
| 68 | Orville Wright | 581 | Mechanical engineering education conference | 434 | Accent on youth | 5 |
| 555 | DURINBERRE, G. M. | | Postgraduate training for the engineer | 176 | Afraid to ask? (Ed) | 3 |
| | Heat transfer through thick insulation on cylindrical enclosures (A) | 251 | Professional education (A) | 684 | Engineering Societies Yearbook (BR) | 377 |
| | DUST | | Speakers on machine design as a career available | 853 | Mechanical engineering education conference | 434 |
| 567 | Condensation nuclei | 221 | Trends in engineering education (BR) 1024 | 1042 | Meetings of other societies | 1035 |
| | DUST COLLECTORS | | UNESCO (A) | 233 | 178, 275, 380, 486, 569, 853, 932 | |
| | Combustion ash collection for the small power plant (A) | 1015 | "Universities" sponsored by ECPD | 274 | Pan-American engineering body favored by South American engineers | 172 |
| 439 | DUVAL, ROBERT E. | | Welding-engineering degree offered by Ohio State University | 174 | Sharing the load (A) | 1030 |
| | Frictional characteristics of O-rings with a typical hydraulic fluid (A) | 1019 | What can the machine-design field expect from the recent college graduate (A) | 1020 | Unified engineering society (A) | 535 |
| 366 | DWEZ, P. E. | | ELASTICITY. See also Deformation, Properties of Materials, Stresses and Strains | | ENGINEERING SOCIETIES LIBRARY | |
| 164 | Discussion of the forces acting in tension impact tests of materials (A) | 549 | Stress-strain relations for finite elastoplastic deformations (A) | 549 | Annual report | 88 |
| | | | ELECTRIC ANALOGY | | Library service bureau increases rates | 569 |
| | | | Heat-flow analyzer (A) | 541 | Publishes bibliography on engineering office filing | 566 |
| | | | ELECTRIC FURNACES. See Furnaces, Industrial Furnaces | | ENGINEERING SOCIETIES PERSONNEL SERVICE, INC. | |
| | | | ELECTRIC MACHINERY | | Positions available | 104, 188, 286, 390, 498, 572, 652, 720, 786, 862, 952, 1046 |
| | | | Thermoelectric generators (A) | 765 | ENGINEERS | |
| | | | ELECTRIC MOTORS | | Accent on youth | 5 |
| | | | Subminiature motors (A) | 348 | Afraid to ask? (Ed) | 3 |
| | | | ELECTRIC POWER | | Armed forces seek file of research and development engineers | 932 |
| | | | Future power needs (A) | 449 | Austrian engineers mark centennial | 853 |
| | | | ELECTRICAL EQUIPMENT | | Definitions (A) | 1031 |
| | | | Electric traction for cranes (BR) | 844 | The difficulties young men contend with | 815 |
| | | | High-voltage direct-current transmission (A) | 904 | The education of professional students for citizenship | 959 |
| | | | ELECTRONICS | | Employer practice (Ed) | 3 |
| | | | Printed electronic circuits (A) | 33 | Employer practice regarding engineering graduates | 13 |
| | | | The transistor (A) | 766 | Engineer-employer relationship (C) | 1041 |
| | | | ELECTROPLATING | | Engineers and politics | 614 |
| | | | Electrodeposition (A) | 34 | The engineer and world recovery (A) | 416 |
| | | | ELECTROSTATICS | | Engineers Joint Council urges deferment of engineers at Congressional hearing | 565 |
| | | | Electrostatic painting (A) | 545 | Is there elbow room in engineering? | 859 |
| | | | ELEVATORS | | Living up to your achievements | 948 |
| | | | On the design of large elevator platforms (A) | 917 | Milwaukee plan of aptitude testing | 750 |
| | | | ELLIOTT, M. A. | | 1948 Edition of "Who's Who in Engineering" available | 274 |
| | | | The removal of aldehydes from Diesel exhaust gas (A) | 460 | Professional engineering state laws (C) | 366 |
| | | | ELSASSER, ROBERT W. | | Services to ASME members (C) | 464 |
| | | | Tools and techniques of management | 979 | Specifications for success | 858 |
| | | | EMBRITTELEMENT | | Survey reveals war use of engineering profession | 380 |
| | | | Hydrogen attack on carbon steels | 414 | The task ahead (Ed) | 293 |
| | | | EMPLOYMENT | | Teaching our way of life—program of ASME Engineers Civic Responsibility Committee for 1948 | 404 |
| | | | Civil-service employment (C) | 79 | Which job for the graduating engineer? | 859 |
| | | | EMPLOYMENT | | Which way up? | 947 |
| | | | Conference Board study on college recruitment (A) | 433 | ENGINEERS' COUNCIL FOR PROFESSIONAL DEVELOPMENT | |
| | | | Employer practice (Ed) | 3 | Annual Meeting, 1948 | 994 |
| | | | Employer practice regarding engineering graduates | 13 | Annual report available | 780 |
| | | | GE hires record number of engineering graduates | 852 | ECPD canons of ethics for engineers approved by ASME | 379 |
| | | | Is there elbow room in engineering? | 859 | ECPD reports increasing use of pre-engineering examinations | 178 |
| | | | Job opportunities (C) | 1041 | | |
| | | | Which job for the graduating engineer? | 859 | | |
| | | | ENGINEERING. See also Nuclear Engineering, Sanitary Engineering | | | |
| | | | American miracle (BR) | 81 | | |
| | | | Definitions (A) | 1031 | | |
| | | | The engineer and internationalism— | | | |

- ENGINEERS' EARNINGS**
Employer practice regarding engineering graduates..... 13
Engineering salaries paid by cities reported in recent survey..... 273
Starting engineering salaries waver..... 954
- ENGINEERS' JOINT COUNCIL**
Brazilian engineers entertained by EJC..... 930
Employer practice regarding engineering graduates..... 13
EJC asks President to push National Science Foundation..... 172
Urges deferment of engineers at Congressional hearing..... 565
- ENGINEERS' REGISTRATION**
Engineering examiners hold annual meeting..... 852
Statistical analysis of examinations (A)..... 1030
- ENGINES-GAS**
New gas engine (A)..... 1002
- ENGINES—INTERNAL COMBUSTION**
High-compression engines (A)..... 822
Improved techniques in the study of engine firing orders using the vectroscope (A)..... 833
- EROSION**
Studies in fly-ash erosion (A)..... 1016
- ESHBACH, O. W.**
Specifications for success..... 858
- ESPEY, GEORGE**
Effect of some processing variables on the stress required to draw tubular parts (A)..... 35
- ETHICS**
ECPD canons of ethics for engineers approved by ASME..... 379
- EVANS, T. C.**
Hydrogen attack on carbon steels..... 414
- EVAPORATORS**
Distilling-plant economy (D)..... 74
- EWART, J. N.**
Low silica content of boiler water minimizes turbine silica deposits (A)..... 695
- EXCAVATION**
Panama-Canal conversion (A)..... 351
- EXHAUST ENERGY. See Power**
- EXHIBIT SYSTEMS**
Industrial exhaust code to be revised..... 854
- EXPLOSIONS**
Atom-bomb explosion (A)..... 150
The study of missiles resulting from accidental explosions (BR)..... 264
- F**
- FARNELL, G.**
High-output combustion of ethyl alcohol and air (A)..... 157
- FATIGUE. See also Metal Testing-Fatigue**
Dynamic capacity of rolling bearings (A)..... 1015
The failure of metals by fatigue (BR)..... 842
Fatigue under combined pulsating stresses (A)..... 917
- FAVILLE, F. A.**
Teaching our way of life—program of ASME Engineers Civic Responsibility Committee for 1948..... 404
- FAS**
Seeks members at large..... 275
- FEEDWATER TREATMENT**
Low-pressure steam-heated distilling plants (A)..... 250
Low silica content of boiler water minimizes turbine silica deposits (A)..... 695
Oil elimination from feedwater (A)..... 250
- FELTON, S. M.**
Opportunities in freight-car design (A)..... 457
- FERGUSON, C. K.**
Test results of high-performance heat-exchanger surfaces used in aircraft intercoolers and their significance for gas-turbine regenerator design (A)..... 357
- FIELD, CROSBY**
The study of missiles resulting from accidental explosions—a manual for investigators..... 174
- FIES, Milton H.**
Underground gasification—an account of experiments on coal conducted at Gorgas, Ala..... 127
- FILING SYSTEMS**
ESL publishes bibliography on engineering office filing..... 566
- FINISHES. See also specific materials and processes**
Modern organic finishes (BR)..... 467
- FINNEGAN, T. J.**
Low silica content of boiler water minimizes turbine silica deposits (A)..... 695
- FLOCK, E. F.**
Definitions of heats of combustion of a fuel and current methods for their determination (A)..... 920
Thermocouple pyrometers for gas turbines (A)..... 636
- FIRE-FIGHTING EQUIPMENT**
Wetting agents in forestry fire fighting (A)..... 359
- FIREPROOFING**
Fire-resistant panel (A)..... 247
- FISCHER, M. A.**
Studies in fly-ash erosion (A)..... 1016
- FISCHEE, ROBERT A.**
A suggestion (C)..... 278
- FITZGERALD, R. C.**
A study of the properties of 0.5 per cent chromium—0.5 per cent molybdenum pipe steel (A)..... 1021
- FLANDERS, R. E.**
To receive Washington Award..... 173
- FLETCHER, L. J.**
The supervisor's place in management..... 893
- FLOW MEASUREMENT. See Fluid Meters**
- FLOW OF FLUIDS. See also Fluid Meters**
The decay of isotropic turbulence (A)..... 452
Design of vaned turns for a large water tunnel (A)..... 631
Flow of heated gases (A)..... 1013
Flow through a pipe with a porous wall (A)..... 916
Fluid-flow diagrams..... 666
The manifold problem (A)..... 550
A study of flow patterns in baffled heat exchangers (A)..... 252
- FLUID MECHANICS**
Evaluation of Reynolds number by graphical methods..... 876
First Heat Transfer and Fluid Mechanics Institute..... 716
Fluid mechanics (BR)..... 700
Institute on Heat Transfer and Fluid Mechanics planned..... 480
- FLUID METERS**
Accurate wide-range metering of natural gas with the differential-type meter (A)..... 459
Analysis of tests on positive-displacement meters for liquid hydrocarbons (A)..... 840
Electrical system for aircraft flowmeters (A)..... 363
Flow of a compressible fluid through a series of identical orifices (A)..... 452
High-pressure gas measurement (A)..... 458
Oscillating-piston meters for fuel consumption in aircraft (A)..... 458
Pipe factors for quantity rate flow measurements with Pitot tubes (A)..... 1019
- FLUTTER. See Vibration**
- FLY ASH**
Studies in fly-ash erosion (A)..... 1016
- FOOD PROCESSING**
Monosodium glutamate (A)..... 761
- FOLSOM, R. G.**
Pipe factors for quantity rate flow measurements with Pitot tubes (A)..... 1019
- FÖPPL, LUDWIG**
Slow-motion pictures of impact tests by means of photoelasticity (A)..... 1015
- FORD, WILLIAM S.**
A pattern for top executive action..... 811
- FOREMAN TRAINING**
The supervisor's place in management..... 893
- FOREMANSHIP**
Improving supervision (BR)..... 367
- FORESTRY. See Sawmills**
- FOX, FRANK W.**
Obituary..... 1050
- FOUNDATIONS**
International congress to be held..... 486
- FOUNDRY PRACTICE. See also Die Casting, Castings**
Continuous casting (A)..... 825
Engineering for aluminum-alloy castings..... 505
High-alloy foundry (A)..... 19
Magnesium castings—their production and use..... 425
Mold and core making (A)..... 23
Mold research (A)..... 242
Precision investment casting (Ed)..... 579
- FRACTURES. See Metals, Properties of Materials**
- FRAENKEL, S. J.**
Experimental studies of biaxially stressed mild steel in the plastics range (A)..... 453
- FRARY, F. C.**
Awarded ASM Gold Medal..... 933
- FREEMAN, HAROLD A.**
Statistical methods in engineering and industry: postwar development..... 818
- FREEMAN, RALPH E.**
In defense of competition (BR)..... 683
- FREIGHT CARS. See Railroad Cars**
- FRENKEL, F. N.**
The decay of isotropic turbulence (A)..... 452
- FREUDENTHAL, A. M.**
A law of work hardening (A)..... 452
- FREUND, C. J.**
Elected ASME president..... 719
- FRICTION. See also Brakes, Clutches**
Studies in boundary lubrication—II. Influence of adsorbed moisture films on coefficient of static friction between lubricated surfaces (A)..... 158
- FRY, LAWFORD H.**
Obituary..... 660, 1050
- FRYLING, GLENN R.**
Trends in engineering education (BR)..... 1042
- FUEL INJECTION**
Continuous fuel injection (A)..... 1009
- FUELS. See also Coal, Fluid Meters, Pulverized Coal**
Coal (A)..... 147
Coal carbonisation in Japan (A)..... 153
Definitions of heat of combustion of a fuel and current methods for their determination (A)..... 920
Furnaces for by-product fuels (A)..... 37
Future fuels—liquid and gaseous..... 421
Gas-turbine power plants for operation with low-cost fuel (A)..... 553
High-compression engines (A)..... 822
High-output combustion of ethyl alcohol and air (A)..... 157
The influence of reaction interface extension in the combustion of gaseous fuel constituents (A)..... 157
Regional standards for locomotive fuel (A)..... 360
Synthetic liquid fuels (D)..... 555
Utilizing bagasse as fuel..... 551
- FURNACES. See also Boiler Furnaces**
Developments in Kraft-process recovery-unit design and performance (A)..... 551
Electric furnace to salvage imperfect Babylonian clay tablets..... 446
Heat transfer in industry..... 11
Utilizing bagasse as fuel..... 551
- FUSNER, GEORGE R.**
The gas turbine with a waste-heat boiler..... 515
- G**
- GAGER. See also Strain Gages**
Branch requirements for spline shafts and fittings..... 680
X-ray thickness gage (A)..... 352
- GANTT, HENRY LAWRENCE**
Gantt and Dodd: an appraisal and an appreciation..... 125
- GARDNER, KARL A.**
Heat-exchanger tube-sheet design (A)..... 357
- GAS ANALYSIS**
Continuous determination of oxygen concentration based on the magnetic properties of gases (A)..... 36
Oxygen determination (A)..... 244
- GAS ENGINES. See Engines-Gas**
- GAS FUEL**
Considerations affecting sound utilization of gas (A)..... 1013
Effect of the introduction of natural gas on a highly industrialized territory previously supplied with manufactured gas (A)..... 1012
Gas-driven locomotives (A)..... 146
The influence of reaction interface extension in the combustion of gaseous fuel constituents (A)..... 157
- GAS TURBINES. See also Fuel Injection, Locomotives—Gas Turbine, Power Plants—Gas Turbine**
Aircraft gas turbine (D)..... 637
Automotive gas turbines (A)..... 692
Axial-flow compressors for gas turbines (A)..... 159
British gas-turbine developments (A)..... 616
Construction of gas turbine for locomotive power plant..... 877
A design method for counterflow shell-and-tube heat exchangers for gas turbines (A)..... 357
Determination of gas-turbine combustion

- GAS TURBINES (continued)**
- tion-chamber efficiency by chemical means (A)..... 35
- Discussion of transmission systems for marine propulsion gas-turbine power plants (A)..... 355
- Energy-temperature relations in the combustion of fuels in gas turbines (A)..... 920
- Experimental combustion of pulverized coal at atmospheric and elevated pressures (A)..... 838
- Gas-turbine blades (A)..... 23
- Gas-turbine construction (BR)..... 263
- Gas-turbine parts needed for instruction purposes..... 170
- Gas-turbine plant combustion-chamber efficiency (A)..... 35
- Gas-turbine school (A)..... 905
- The gas turbine with a waste-heat boiler. How gas turbines fit into future power patterns..... (A) 553, 796
- A laboratory for gas-turbine development..... 195
- Marine gas turbines (A)..... 537
- Mechanical investigations of gas-turbine components (A)..... 1020
- 1000-Kw gas-turbine plant (A)..... 144
- Studies in fly-ash erosion (A)..... 1016
- Temperature measurements and combustion efficiency in combustors for gas-turbine engines (A)..... 35
- Test results of high-performance heat-exchanger surfaces used in aircraft intercoolers and their significance for gas-turbine regenerator design (A)..... 357
- Thermocouple pyrometers for gas turbines (A)..... 636
- 2000-hp gas-turbine tests (A)..... 445
- GASES. See also Natural Gas, specific gases**
- Brief review of available data on the dynamic viscosity and thermal conductivity for twelve gases (A)..... 839
- Dielectric-constant and refractivity data (A)..... 839
- Facilities for, and work under way in gas-properties research (A)..... 839
- Heats of formation and chemical thermodynamic properties (A)..... 839
- Ignition and flame stabilization in gases (A)..... 158
- Industry's requirements for data on gas properties (A)..... 839
- Introductory comments to a series of contributions on gas properties (A)..... 838
- Molecular constants from spectroscopic data (A)..... 839
- Production of acetylene from methane (A)..... 343
- Properties of gases; a symposium (A)..... 838
- The removal of aldehydes from Diesel exhaust gas (A)..... 460
- A summary of experimental determinations of Joule-Thomson effects in gases (A)..... 839
- Thermodynamic properties of gas mixtures encountered in gas-turbine and jet-propulsion processes (A)..... 257
- Vapor pressure, specific volume, p - v - T data for H_2 , N_2 , O_2 , CO , CO_2 , air, He , A Hg (A)..... 839
- Vapor pressure, specific volumes, and p - v - T data for H_2O , NH_3 , CH_4 , C_2H_6 with comments on mixtures (A)..... 839
- GASIFICATION. See Coal—Gasification**
- GATES, R. M.**
- Engineers Joint Council offers services to UNESCO..... 270
- GAUTHIER, T. R.**
- Engineering for aluminum-alloy castings..... 505, 774
- GEARS**
- Worm-gear testing machine (A)..... 24
- GEIST, J. M.**
- Condensation on six finned tubes in a vertical row (A)..... 252
- GENERATORS. See Electric Machinery**
- Thermoelectric Generators**
- GERARD, GEORGE**
- Critical shear stress of plates above the proportional limit (A)..... 160
- GERMANY**
- Taylor report on Germany (A)..... 688
- GIGER, W.**
- Gas-turbine railway vehicles (A)..... 457
- Mobile gas-turbine power plants and locomotives (A)..... 914
- GILBRETH, LILLIAN M.**
- Awarded the Woman's Association Award of Eminent Achievement..... 1034
- Methods-time measurement (BR)..... 1027
- GILG, F. X.**
- Utilizing bagasse as fuel..... 551
- GLASS**
- Fiberglass-reinforced plastics (A)..... 246
- GLEYZAL, A.**
- Plastic deformation of a circular diaphragm under pressure (A)..... 453
- GLUED-LAMINATED CONSTRUCTION**
- Performance characteristics of tight oak-laminated stave and solid-stave barrels (A)..... 359
- Results of accelerated tests and long-term exposures on glue joints in laminated beams (A)..... 358
- GOETZENBERGER, R. L.**
- Living up to your achievements..... 948
- GOLAND, MARTIN**
- The flutter of a uniform wing with tip weights..... 36
- GOLDSBURY, JOHN**
- Gas-turbine power plants for operation with low-cost fuel (A)..... 553
- GOLDSMITH, L. M.**
- Receives President's Certificate of Merit..... 949
- GOLF BALLS**
- Silicone golf-ball center (A)..... 343
- GOLONKA, E. M.**
- Design of main cylinder joints for steam turbines (A)..... 698
- GOODRICH, B. D.**
- Conversion of pipe lines from oil to gas transmission; the "Big Inch" and "Little Big Inch" pipe lines..... 733
- GORDON, CHARLES W.**
- Flash drying of materials by a new method (A)..... 356
- GORDON, LORD DUDLEY**
- Biography..... 70
- Honorary membership..... 70
- GORS, J. H.**
- Permanent-magnet material..... 671
- GOSB, WYMAN**
- Silicone rubber—new properties for design engineers (A)..... 918
- GOTBERG, HARRY H.**
- Broach requirement for spline shafts and fittings..... 680
- GOVERNMENT**
- American industry, Democracy's ace in the hole..... 839
- Engineering in an era of big science and big business..... 963
- Engineers and politics..... 614
- Freedom and security (BR)..... 925
- In defense of competition (BR)..... 683
- Taxes and the budget (A)..... 17
- Teaching our way of life—program of ASME Engineers Civic Responsibility Committee for 1948..... 404
- GOVERNORS**
- AIEE-ASME specifications for prime-mover speed governing available..... 567
- Steam-turbine governor regulation (A)..... 698
- GRANTZ, H. E.**
- Aircraft gas turbine (D)..... 637
- GRAPHICAL METHODS**
- Evaluation of Reynolds number by graphical methods..... 876
- Fluid-flow diagrams..... 666
- GRAPHITIZATION**
- Further investigation on the graphitization of piping for the EEI and AEIC (A)..... 1021
- GRASSI, R. C.**
- Fracture of gray-cast-iron tubes under biaxial stresses (A)..... 918
- GRATCH, SERGE**
- Vapor pressure, specific volume, p - v - T data for H_2 , N_2 , O_2 , CO , CO_2 , air, He , A , Hg (A)..... 839
- GRAY IRON**
- Unappreciated advantages of modern gray iron..... 667
- GREAT BRITAIN**
- British industries fair (A)..... 764
- GREEN, R. B.**
- Gyroscopic effects on the critical speeds of flexible rotors (A)..... 550
- GREEN, WALTER L.**
- Diesels on salt water (A)..... 835
- GREENE, ARTHUR M., JR.**
- Saga in steel and concrete (BR)..... 775
- GRIEGER, T. H.**
- What is an optimum anti-icing design? (A)..... 836
- GRIFFIN, J. F.**
- Streamlining effect on air resistance and smoke lifting on steam locomotives..... 249
- GRIFFIS, LEVAN**
- The propagation of plasticity in uniaxial compression (A)..... 549
- GRIMALDI, JOHN V.**
- Accident prevention using operations-analysis procedures..... 528
- GRIMISON, E. D.**
- Heat Transfer Division pays tribute to former member..... 174
- GRINDING**
- An evaluation of cylindrical grinding performance (A)..... 770
- GRINDING WHEELS**
- Theory and practice of the crush-dressing operation on grinding wheels (A)..... 628
- GRUNER, FRED. R.**
- Engineering problems in the design of heavy mining and process machinery (A)..... 1017
- GUINN, S. G.**
- Thermal environment of railroad passenger cars (A)..... 832
- GUNBY, FRANK M.**
- Regional vice-president..... 61
- GUNNESS, R. C.**
- Future fuels—liquid and gaseous..... 421
- GUNTER, A. Y.**
- A study of flow patterns in baffled heat exchangers (A)..... 252
- GYROSCOPIC EFFECT. See Rotors**

H

- HAAR, SELBY**
- Obituary..... 1050
- HABIB, E. T.**
- A new method of making high-speed compression tests on small copper cylinders (A)..... 453
- HALL, A. M.**
- Further investigation on the graphitization of piping for the EEI and AEIC (A)..... 1021
- HALL, N. A.**
- Industry's requirements for data on gas properties (A)..... 839
- HAMMOND, W. E.**
- Discussion of transmission systems for marine propulsion gas-turbine power plants (A)..... 355
- HANCOCK, JOHN M.**
- Gantt and Dodd; an appraisal and an appreciation..... 125
- HANK, R. J.**
- Stresses and displacements in a semi-infinite elastic body with parabolic cross section acted on by its own weight only (A)..... 1015
- HANNAH, M. RUSSELL**
- Frequency-response measurements of a hydraulic power unit (A)..... 363
- HATCH, THEODORE F.**
- Man-machine proficiency (BR)..... 701
- HAUGER, HARRY H., JR.**
- St. Louis Junior Award..... 68
- HAUSER, G. B.**
- Freight-car construction (A)..... 254
- HAWKINS, G. A.**
- Brief review of available data on the dynamic viscosity and thermal conductivity for twelve gases (A)..... 839
- HAY, EARL D.**
- Styling and the mechanical designer..... 983
- HAZARD, C. S.**
- Oscillating-piston meters for fuel consumption in aircraft (A)..... 458
- HAZARD, H. R.**
- Experimental combustion of pulverized coal at atmospheric and elevated pressures (A)..... 838
- HEAT EXCHANGERS**
- A design method for counterflow shell-and-tube heat exchangers for gas turbines (A)..... 357
- The effect of baffle height and baffle clearance on heat transfer and pressure drop in heat exchangers (A)..... 36
- An extension of two-steam heat-exchanger theory to include the effect of longitudinal conduction (A)..... 696
- Heat-exchanger tube-sheet design (A)..... 357
- Heat transfer and fluid friction during viscous flow across banks of tubes (A)..... 252
- Shell-side heat-transfer characteristics of segmentally baffled shell-and-tube heat exchangers (A)..... 462
- A study of flow patterns in baffled heat exchangers (A)..... 252
- Test results of high-performance heat-exchanger surfaces used in aircraft intercoolers and their significance for gas-turbine regenerator design (A)..... 357

| | | | | | |
|---|------|--|--|--|--|
| HEAT-INSULATING MATERIALS | | | | | |
| Fire-resistant panel (A)..... | 247 | | | | |
| Insulation material (A)..... | 627 | | | | |
| HEAT PUMPS | | | | | |
| Air heat pump (A)..... | 346 | | | | |
| Heat-pump economics (A)..... | 237 | | | | |
| Heat-pump installations (D)..... | 258 | | | | |
| HEAT TRANSFER | | | | | |
| Condensation of refrigerant vapors—apparatus and film coefficients for Freon-12 (A)..... | 251 | | | | |
| Condensation on six finned tubes in a vertical row (A)..... | 252 | | | | |
| A design method for counterflow shell-and-tube heat exchangers for gas turbines (A)..... | 357 | | | | |
| The effect of baffle height and baffle clearance on heat transfer and pressure drop in heat exchangers (A)..... | 36 | | | | |
| An extension of two-steam heat-exchanger theory to include the effect of longitudinal conduction (A)..... | 696 | | | | |
| First Heat Transfer and Fluid Mechanics Institute..... | 716 | | | | |
| Flow of heated gases (A)..... | 1013 | | | | |
| Heat conduction with engineering and geological application (BR)..... | 843 | | | | |
| Heat transfer and fluid friction during viscous flow across banks of tubes (A)..... | 252 | | | | |
| Heat transfer in industry..... | 11 | | | | |
| Heat-transfer temperature patterns of a multicomponent structure by comparative methods (A)..... | 633 | | | | |
| Heat transfer through thick insulation on cylindrical enclosures (A)..... | 251 | | | | |
| Heat transfer to molten metals (correction)..... | 306 | | | | |
| Institute on Heat Transfer and Fluid Mechanics planned..... | 480 | | | | |
| Investigation of the variation of point unit heat-transfer coefficients for laminar flow over an inclined flat plate (A)..... | 916 | | | | |
| A mathematical analysis of a number of dielectric heating problems (A)..... | 554 | | | | |
| Prediction of pressure drop during forced-circulation boiling of water (A)..... | 462 | | | | |
| Shell-side heat-transfer characteristics of segmentally baffled shell-and-tube heat exchangers (A)..... | 462 | | | | |
| A study of flow patterns in baffled heat exchangers (A)..... | 252 | | | | |
| Test results of high-performance heat-exchanger surfaces used in aircraft intercoolers and their significance for gas-turbine regenerator design (A)..... | 357 | | | | |
| Thermal-contact resistance of laminated and machined joints (A)..... | 696 | | | | |
| Thermal-resistance measurements of joints formed between stationary metal surfaces (A)..... | 696 | | | | |
| HEAT TREATMENT | | | | | |
| Designing for high-frequency induction hardening (A)..... | 696 | | | | |
| HEATING. See also High-Frequency Heating. Solar Energy | | | | | |
| Cockpit-design problems of high-altitude high-speed aircraft..... | 883 | | | | |
| Electric radiant heating (A)..... | 350 | | | | |
| Gas-oil heating unit (A)..... | 687 | | | | |
| Industrial applications of infrared (BR)..... | 561 | | | | |
| Infrared heating (A)..... | 622 | | | | |
| Panel heating (BR)..... | 702 | | | | |
| Radiant heating (BR)..... | 702 | | | | |
| Smokeless coal burning (A)..... | 448 | | | | |
| Thermal environment of railroad passenger cars (A)..... | 832 | | | | |
| HEBLEY, HENRY F. | | | | | |
| Stability of the atmosphere and its influence on air pollution..... | 407 | | | | |
| HEINRICH, H. W. | | | | | |
| Industrial health engineering (BR)..... | 263 | | | | |
| Integrating safety engineering in engineering college curricula (A)..... | 632 | | | | |
| HEIPLE, H. R. | | | | | |
| Mechanisms of combustion and their relation to oil-burner design (A)..... | 364 | | | | |
| HEISLER, MICHAEL P. | | | | | |
| A mathematical analysis of a number of dielectric heating problems (A)..... | 554 | | | | |
| HELFRICH, E. C. | | | | | |
| Theory and practice of the crush-dressing operation on grinding wheels (A)..... | 628 | | | | |
| HELICOPTERS | | | | | |
| Experimental helicopter (A)..... | 986 | | | | |
| Jet-propelled helicopters (A)..... | 618 | | | | |
| Pulsejet helicopter (A)..... | 903 | | | | |
| Ramjet helicopter..... | 27 | | | | |
| HEMPFEL, EDWARD H. | | | | | |
| The management-labor relationship (BR)..... | 701 | | | | |
| The new men of power, America's labor leaders (BR)..... | 1026 | | | | |
| Scientific management (BR)..... | 265 | | | | |
| HENNINGER, G. R. | | | | | |
| New editor of IES Journal..... | 932 | | | | |
| HERZBERG, G. | | | | | |
| Molecular constants from spectroscopic data (A)..... | 839 | | | | |
| HIGGINS, ALDUS CHAPIN | | | | | |
| Obituary..... | 1050 | | | | |
| HIGGINS, S. P. | | | | | |
| Laboratory analogs for electric furnaces (A)..... | 919 | | | | |
| HIGH-ALTITUDE FLIGHT | | | | | |
| Cockpit-design problems of high-altitude high-speed aircraft..... | 883 | | | | |
| Supersonic-aircraft pilots (A)..... | 824 | | | | |
| HIGH-ALTITUDE RESEARCH | | | | | |
| Stratosphere balloons (A)..... | 33 | | | | |
| Upper-atmosphere flight (A)..... | 344 | | | | |
| Upper-atmosphere research (A)..... | 547 | | | | |
| HIGH-ALTITUDE TESTING | | | | | |
| Pressure-chamber experiments (A)..... | 26 | | | | |
| HIGH-FREQUENCY HEATING | | | | | |
| Design and manufacture for profit by means of high-frequency induction heating..... | 805 | | | | |
| Designing for high-frequency induction hardening (A)..... | 696 | | | | |
| High-frequency molding method applied to compound curvatures in wood..... | 213 | | | | |
| Radio-frequency heating in the wood-working industry (A)..... | 358 | | | | |
| Reports from Germany (A)..... | 448 | | | | |
| HIGH-TEMPERATURE MATERIALS | | | | | |
| Ceramic-coated molybdenum (A)..... | 1004 | | | | |
| HIGH TEMPERATURES | | | | | |
| High-temperature furnaces (A)..... | 234 | | | | |
| HILL, RODNEY | | | | | |
| General features of plastic-elastic problems as exemplified by some particular solutions (A)..... | 917 | | | | |
| HINDMAN, HAROLD | | | | | |
| The Instron tensile tester (A)..... | 1018 | | | | |
| HODGES, M. E. | | | | | |
| Modern organic finishes (BR)..... | 467 | | | | |
| HODGKINSON, FRANCIS | | | | | |
| Biography..... | 71 | | | | |
| Honorary membership..... | 70 | | | | |
| HOFFERT, J. R. | | | | | |
| Why pollution abatement concerns the mechanical engineer (A)..... | 629 | | | | |
| HOISTING MACHINERY | | | | | |
| Electric traction for cranes (BR)..... | 844 | | | | |
| HOLEY, KARL | | | | | |
| The status of technology as related to the questions of today..... | 888 | | | | |
| HOLLANDER, A. | | | | | |
| Laboratory investigations of the mechanism of cavitation (A)..... | 840 | | | | |
| HOLLOMON, JOHN H. | | | | | |
| Wins Alfred Noble prize..... | 273 | | | | |
| HOLTER, ALFRED | | | | | |
| Obituary..... | 1050 | | | | |
| HONORS AND AWARDS | | | | | |
| ASME Board on Honors prepares manual on policies..... | 173 | | | | |
| ASME honorary memberships..... | 70 | | | | |
| ASME Medal..... | 68 | | | | |
| Award of Merit of the Chicago Technical Societies Council..... | 715 | | | | |
| Biographical sketches of 1947 recipients of ASME awards..... | 67 | | | | |
| Cresson Medal..... | 933 | | | | |
| James Douglas Gold Medal..... | 1034 | | | | |
| Charles B. Dudley Medal..... | 707 | | | | |
| Dr. William F. Durand receives Presidential Medal for Merit..... | 377 | | | | |
| Edison Medal..... | 271 | | | | |
| Engineering awards..... | 1034 | | | | |
| John Fritz Medal..... | 933 | | | | |
| Gantt Gold Medal..... | 72 | | | | |
| Gantt Medal..... | 68 | | | | |
| Gold Medal of the American Society for Metals..... | 933 | | | | |
| Gold Medal of the International Committee of Scientific Management..... | 275 | | | | |
| Holley Medal..... | 68 | | | | |
| Industrial Research Institute Medal 174, Junior Award..... | 1034 | | | | |
| Lamme Medal..... | 482 | | | | |
| A. J. Langhammer receives powder-metallurgy award..... | 381 | | | | |
| Main Award..... | 68 | | | | |
| Medal for Merit for wartime service..... | 854 | | | | |
| Medal of Honor of IRE..... | 1035 | | | | |
| Melville Medal..... | 68 | | | | |
| Alfred Noble prize..... | 273 | | | | |
| Pi Tau Sigma Medal..... | 68 | | | | |
| Charles P. Rand Medal..... | 1034 | | | | |
| Rice Memorial Scholarship..... | 854 | | | | |
| Richards Award..... | 68 | | | | |
| St. Louis Junior Award..... | 68 | | | | |
| St. Louis Medal..... | 68 | | | | |
| W. L. Saunders Medal..... | 1034 | | | | |
| Taylor Key..... | 178 | | | | |
| HONORS AND AWARDS (continued) | | | | | |
| Undergraduate Award..... | 68 | | | | |
| Universities honor engineers..... | 715 | | | | |
| Warner Medal..... | 68 | | | | |
| Washington Award..... | 173 | | | | |
| George Westinghouse Award..... | 719 | | | | |
| HOFF, H. A. | | | | | |
| Knighted by Sweden..... | 645 | | | | |
| Receives Taylor Key of SAM..... | 178 | | | | |
| Development and trend in the design of hopper-discharge types of railway cars (A)..... | 253 | | | | |
| HOFFMANN, W. H., 2ND | | | | | |
| Impact of a mass on a damped elastically supported beam (A)..... | 916 | | | | |
| HORNFECK, A. J. | | | | | |
| Response characteristics of thermometer elements (A)..... | 919 | | | | |
| HOTTEL, H. C. | | | | | |
| Generalized thermodynamics of high-temperature combustion (A)..... | 840 | | | | |
| Receives Medal for Merit..... | 854 | | | | |
| HOWARD, ALAN | | | | | |
| Design features of a 4800-hp locomotive gas-turbine power plant..... | 301 | | | | |
| HOWE, E. D. | | | | | |
| Stability of SR-4 electric-strain gages and methods for their waterproofing and protection in field service (A)..... | 364 | | | | |
| HOYT, S. L. | | | | | |
| Further investigation on the graphitization of piping for the EEL and AEIC (A)..... | 1021 | | | | |
| HRONES, JOHN A. | | | | | |
| An analysis of the dynamic forces in a cam-driven system (A)..... | 161 | | | | |
| HUFFMAN, JOHN R. | | | | | |
| Nuclear engineering; basic design background and scope of a new branch of engineering..... | 217 | | | | |
| HUO, RICHARD D. | | | | | |
| Engineering education (D)..... | 699 | | | | |
| HUNT, GEORGE M. | | | | | |
| Integrated forest utilization (D)..... | 463 | | | | |
| HUSKEY, HARRY D. | | | | | |
| The status of high-speed digital computing systems..... | 975 | | | | |
| HUSKEY, G. F. | | | | | |
| Appointed ASA administrative head..... | 178 | | | | |
| HUSSEMAN, A. W. | | | | | |
| Calculation of torsional vibrations in engines (A)..... | 836 | | | | |
| HUSTON, FRED. P. | | | | | |
| Notes on the design and construction of staybolt locomotives (A)..... | 256 | | | | |
| HUTCHINSON, R. M. | | | | | |
| Laboratory analogs, electric furnaces (A)..... | 919 | | | | |
| HYDRAULIC DRIVES. See Airplane Hydraulic Systems | | | | | |
| HYDRAULIC PRESSES. See Power Presses | | | | | |
| HYDRAULIC TURBINES | | | | | |
| Repairs hydro adjustable blade turbines by welding (A)..... | 912 | | | | |
| Speed-regulation computations for hydraulic turbines (A)..... | 1020 | | | | |
| HYDRAULICS. See also Flow of Fluids, Fluid Mechanics, Fluid Meters | | | | | |
| Fluid mechanics (BR)..... | 700 | | | | |
| Hydraulic problems in connection with the design of the Granby Pumping Plant (A)..... | 37 | | | | |
| Performance criteria for positive-displacement pumps and fluid motors (A)..... | 698 | | | | |
| Scale models in hydraulic engineering (BR)..... | 842 | | | | |
| HYDRODYNAMICS | | | | | |
| Cavitation characteristics and infinite aspect ratio characteristics of a hydrofoil section (A)..... | 632 | | | | |
| The Hydrodynamics Laboratory of the California Institute of Technology (A)..... | 160 | | | | |
| The hydrosphere—a new hydrodynamic bearing (A)..... | 37 | | | | |
| HYDROFOILS. See Hydrodynamics | | | | | |
| HYDROGEN | | | | | |
| Hydrogen attack on carbon steels..... | 414 | | | | |
| HYDROGENATION | | | | | |
| High-pressure hydrogenation (A)..... | 905 | | | | |
| HYMANS, F. | | | | | |
| On the design of large elevator platforms (A)..... | 917 | | | | |
| I | | | | | |
| ICE | | | | | |
| Heat anti-icing for the airlines (A)..... | 836 | | | | |
| Icing flight tests of the Lockheed P2V (A)..... | 837 | | | | |

- ICE (continued)
What is an optimum anti-icing design? (A)..... 836
IGNITION. See Gases
IMPACT. See Metal Testing—Impact
IMPAGLIAZZO, A. M.
Distilling-plant economy (AC)..... 77
Low-pressure steam-heated distilling plants (A)..... 250
INDEXING. See Filing Systems
INDUCTION HEATING. See High-Frequency Heating
INDUSTRIAL DESIGN
Predesign research as applied to product development..... 208
Styling and the mechanical designer..... 983
Technique of experimenting in the factory..... 593
INDUSTRIAL DEVELOPMENT
British industries fair (A)..... 764
INDUSTRIAL ENGINEERING. See also Management
Industrial engineers set up new society..... 482
INDUSTRIAL FURNACES
All-carbon hearths (A)..... 21
Laboratory analogs for electric furnaces (A)..... 919
Pressure blast furnace (A)..... 759
INDUSTRIAL HYGIENE
Industrial health engineering (BR)..... 263
Talk delivered before Industrial Hygiene Foundation (A)..... 239
INDUSTRIAL LOCATION
Social aspects of decentralization..... 532
INDUSTRIAL PLANTS
Electronics plant (A)..... 1005
INDUSTRIAL PRODUCTIVITY
American industry, Democracy's ace in the hole..... 663
Productivity in the United Kingdom (A)..... 1010
Productivity—prices and markets..... 123
INDUSTRIAL RELATIONS. See also Wage Problems
American arbitration (BR)..... 926
Employee-management study (A)..... 143
Improving supervision (BR)..... 367
In-service education (A)..... 338
Joint training course in labor relations conducted by a textile mill and a union (A)..... 460
Labor-management conflict or co-operation?..... 531
Labor relations in a nutshell..... 803
Man power (A)..... 829
The management-labor relationship (BR)..... 701
Mutual survival (BR)..... 468
The new men of power, America's labor leaders (BR)..... 1026
Personal factors for developing safety consciousness (A)..... 633
Social aspects of decentralization..... 532
Ten months of the Taft-Hartley Act..... 752
Union-management co-operation..... 230
What the labor-management relations act of 1947 means to executives..... 226
INDUSTRIAL TRAINING. See also Foreman Training
The difficulties young men contend with..... 815
Engineering training..... 743
Improving supervision (BR)..... 367
Industry develops engineers..... 747
INDUSTRIAL TRUCKS
ASME safety code for industrial power trucks..... 278
Industrial power trucks committee organization meeting held..... 650
Industrial truck-handling methods applied to production and distribution (A)..... 554
INDUSTRIAL WASTES
Furnaces for by-product fuels (A)..... 37
Why pollution abatement concerns the mechanical engineer (A)..... 629
INDUSTRY
American free enterprise (BR)..... 948
American industries built upon engineering and science can save the world
American industry, Democracy's ace in the hole..... 663
Future power needs (A)..... 449
The industrial application of nuclear energy..... 295
Industrial planning (D)..... 464
Long-range industrial planning..... 137
A rebel yella (BR)..... 276
Social aspects of decentralization..... 532
INFRARED. See Heating
INSPECTION. See Quality Control
INSTRUMENTS. See also Airplane Instruments, Strain Gages
Diagnosing engine troubles in flight (A)..... 635
INSTRUMENTS (continued)
Spring transducer (A)..... 1007
Third Instrument Conference, Philadelphia..... 718
Wind-tunnel optics (A)..... 446
INSTRUMENTS—MEASURING
Development of an air-operated force-measuring system (A)..... 159
Electron-diffraction instrument (A)..... 153
INSTRUMENTS—PHOTOELECTRIC
Ozone measurement (A)..... 440
INSTRUMENTS—PRESSURE
The use of Bourdon tubes in pneumatic pressure transmitters (A)..... 919
INSTRUMENTS—TEMPERATURE
Combustion studies using the Golay photothermal detector with an infrared monochromator (A)..... 697
Response characteristics of thermometer elements (A)..... 919
Thermocouple pyrometers for gas turbines (A)..... 636
INSTRUMENTS—VIBRATION
The absolute calibration of electro-mechanical pickups (A)..... 160
Motor-mount testing machine (A)..... 340
INSULATION
Moisture and temperature control (A)..... 27
INTERNATIONAL RELATIONS
Bankruptcy of "internationalist" thinking (BR)..... 336
The engineer and world recovery (A)..... 416
Engineers Joint Council offers services to UNESCO..... 270
Europe looks to America for technological assistance..... 813
International Conference of Engineering Bodies, London..... 486
Military support for ERP urged by W. L. Batt..... 569
Pattern of international co-operation agreed upon by Western European and American engineering societies..... 1032
Tariff on drawings favored by Canadian engineers..... 854
UNESCO (A)..... 233
UNESCO and engineering..... 819
United Nations Day (Ed)..... 791
INTERNATIONAL TECHNICAL CONGRESS
Planned for Cairo, Egypt, 1949..... 780
IRBY, G. S., JR.
Silicone rubber—new properties for design engineers (A)..... 918
IRON. See Gray Iron
IRON AND STEEL INDUSTRY
All-carbon hearths (A)..... 21
IRON AND STEEL MANUFACTURE
Continuous casting (A)..... 825
Descaling plant (A)..... 347
Pressure blast furnace (A)..... 759
Ore research laboratory (A)..... 618
IRRIGATION
Pumping requirements for irrigation on Columbia Basin and Central Valley Projects of the Bureau of Reclamation (A)..... 417
IVERSEN, H. W.
Pipe factors for quantity rate flow measurements with Pitot tubes (A)..... 1019
J
JACK, W. A.
Decibel level (A)..... 833
JAKOB, MAX
Awarded honorary degree..... 715
JAPAN
Report on Japan and Korea (A)..... 760
JESSUP, R. S.
Definitions of heats of combustion of a fuel and current methods for their determination (A)..... 920
JET PROPULSION
Aircraft jet engine (A)..... 693
Automatic control of turbojet engines (A)..... 914
Canadian jet engine (A)..... 758
Jet propulsion progress (BR)..... 368
Thrust augmentation as applied to the turbojet engine (A)..... 915
JEWELL, R. G.
A remote-indicating pressure gage for aircraft (A)..... 636
JOEST, CONRAD
Ball bearing slides (A)..... 454
JOCHIM, THEODORE B.
Industry develops engineers..... 747
JOHNSON, CURT I.
A new approach to the design of dynamically loaded extension and compression springs (A)..... 631
JOHNSON, E. L.
Intensive utilization of coal-fired steam locomotives (A)..... 361
JOHNSON, E. SIGURD
Factory layout and equipment for the mass production of molded plywood furniture (A)..... 634
JOHNSON, RAYMOND D.
Holley Medal..... 68
JOHNSTON, H. L.
A summary of experimental determinations of Joule-Thompson effects in gases (A)..... 839
JOINTS. See Heat Transfer, Petroleum-Well Equipment, Welding
JONES, BASSETT
"Economic curios" (D)..... 922
Industrial planning (D)..... 464
JORDAN, D. G.
High-output combustion of ethyl alcohol and air (A)..... 157
JORDAN, F. W.
Heat-pump installations (D)..... 258
JURAN, J. M.
Freedom and security (BR)..... 925
JUSTIN, JOEL B.
Repairs hydro adjustable blade turbines by welding (A)..... 912
K
KARG, W. E.
Turbine-blade deposits—Burlington Generating Station (A)..... 694
KATES, EDGAR J.
Diesel fuel oils—production, characteristics, and combustion (BR)..... 924
KATZ, D. L.
Condensation on six finned tubes in a vertical row (A)..... 252
KAYAN, CARL F.
Heat-transfer temperature patterns of a multicomponent structure by comparative methods (A)..... 633
KEENAN, J. H.
Reaction tests of turbine nozzles for supersonic velocities (A)..... 1017
KEETH, J. A.
Biography..... 711
Nominated for director at large..... 711
KELLER, J. D.
The manifold problem (A)..... 550
KELLS, C. F.
Industrial truck-handling methods applied to production and distribution (A)..... 554
KENNEDY, C. W.
A discussion of modern quality control techniques (A)..... 461
KENNEY, C. E.
Steam-turbine governor regulation (A)..... 698
KERR, CHARLES, JR.
Developments and trends in coal-burning locomotives (A)..... 362
KETCHAM, CHRISTIAN B.
Obituary..... 1050
KEYES, F. G.
Introductory comments to a series of contributions on gas properties (A)..... 838
Vapor pressure, specific volumes, and p - v - T data for H_2O , NH_3 , CH_4 , C_2H_6 with comments on mixtures (A)..... 839
KEYS AND KEYWAYS
Hobs for spline shafts (A)..... 768
Involute-spline experience (A)..... 768
Straight-sided splines..... 738
KIEFER, PAUL W.
ASME Medal..... 68
Protection of lading and equipment (A)..... 1018
KIMBALL, DEXTER S.
Scientific blacksmith (BR)..... 80
KLEINSCHMIDT, R. V.
Energy-temperature relations in the combustion of fuels in gas turbines (A)..... 920
Facilities for, and work under way in gas-properties research (A)..... 839
Technical and economic aspects of water purification for ships (A)..... 281
KLITCHIEFF, J. M.
On the stability of plates reinforced by ribs (A)..... 917
KNAPP, ROBERT T.
Fluid mechanics (BR)..... 700
The Hydrodynamics Laboratory of the California Institute of Technology (A)..... 160
Laboratory investigations of the mechanism of cavitation (A)..... 840

| | | | | | | |
|------|--|------|---|---|---|------|
| | MALCOLM, V. T. The structural stability of several cast low-alloy steels at elevated temperatures (A)..... | 1021 | MEASURES. <i>See</i> Standards | MICROSCOPY Color microscopy (A)..... | 245 | |
| 365 | MANAGEMENT. <i>See also</i> Industrial Relations, Personnel Work, Product Development, Product Inspection, Quality Control, Time and Motion Study, Wage Problems | | MECHANICAL ACTIVATION. <i>See</i> Chemical Processes, Metal Cutting, Organometallic Compounds | MIDWEST POWER CONFERENCE Held April 7-9, in Chicago..... | 271 | |
| 158 | Engineer administration training (A)... | 898 | MECHANISMS. <i>See also</i> various types of mechanisms, Cams, Cranks, Gears, etc. Curvature-acceleration relations for plane cams (A)..... | 456 | MIKLOWITZ, JULIUS The influence of the dimensional factors on the mode of yielding and fracture in medium-carbon steel—I. The geometry and size of the flat tensile bar (A)..... | 550 |
| 793 | Improving supervision (BR)..... | 367 | Motion analysis of several intermittent variable-speed mechanisms featuring zero or near-zero acceleration and deceleration conditions at the start and at the end of the motion of the output shaft (A)..... | 630 | MILITARY TRAINING Employers co-operate in national-defense training..... | 274 |
| 11 | Labor-management conflict or co-operation?..... | 531 | MEDICAL RESEARCH Engineering and the medical sciences..... | 661 | Man-machine proficiency (BR)..... | 701 |
| 36 | Measuring opinions, attitudes, and consumer wants..... | 432 | METAL COATING Ceramic-coated steel (A)..... | 349 | MILLER, CHARLES T. More junior-senior contacts needed (C)..... | 277 |
| 637 | A pattern for top executive action..... | 811 | Electrostatic painting (A)..... | 545 | MILLER, J. G. Dielectric-constant and refractivity data (A)..... | 839 |
| | Productivity—prices and markets..... | 123 | Engineering the tin can..... | 315 | MILLING. <i>See also</i> Metal Cutting | |
| | Scientific management (BR)..... | 265 | Protein corrosion inhibitor (A)..... | 548 | MILLS, B. D., JR. Fatigue under combined pulsating stresses (A)..... | 917 |
| | The supervisor's place in management..... | 893 | METAL CUTTING Apparatus research laboratory (A)..... | 31 | MINERAL ENGINEERING. <i>See</i> Ore Treatment | |
| 1015 | Tools and techniques of management..... | 979 | Development of a high-speed lathe for machining aluminums (A)..... | 161 | MINERALOGY Color microscopy (A)..... | 245 |
| | Union-management co-operation..... | 230 | Distribution of heat generated in drilling (A)..... | 628 | MINING. <i>See</i> Ore Treatment | |
| | What the labor-management relations act of 1947 means to executives..... | 226 | Influence of steel hardness in face-milling (A)..... | 1018 | MINING MACHINERY Engineering problems in the design of heavy mining and process machinery (A)..... | 1017 |
| 1014 | MANDEL, JEROME H. An opportunity for juniors (C)..... | 488 | Mechanical activation—a newly developed chemical process (A)..... | 36 | MITCHELL, DON G. Social aspects of decentralization..... | 532 |
| 926 | MANIFOLDS The manifold problem (A)..... | 550 | Metal-cutting tools (BR)..... | 702 | MODELS. <i>See also</i> Ship-Model Testing Laboratory analogs for electric furnaces (A)..... | 919 |
| | MANUFACTURING. <i>See also</i> Product Design Co-ordination of design, and manufacture in the transportation and generator division of Westinghouse (A)..... | 456 | METAL DRAWING Effect of some processing variables on the stress required to draw tubular parts (A)..... | 35 | Lubrication phenomena. Use of transparent models for purposes of demonstration and study..... | 589 |
| | It's the little things that count..... | 519 | METAL FAILURES The failure of metals by fatigue (BR)... | 842 | Motor vehicle model testing (A)..... | 688 |
| 358 | MARINE ENGINEERING Discussion of transmission systems for marine propulsion gas-turbine power plants (A)..... | 355 | METAL ROLLING Contact stresses in the rolling of metals—I (A)..... | 916 | The original Froude hull models..... | 136 |
| 784 | Low-pressure steam-heated distilling plants (A)..... | 250 | METAL TESTING A clinical approach to weldment design (A)..... | 461 | Scale models in hydraulic engineering (BR)..... | 842 |
| | Oil elimination from feedwater (A)..... | 250 | Development of cleavage fractures in mild steels (A)..... | 255 | Some properties of a mechanical model of plasticity (A)..... | 453 |
| 675 | MARKETING Measuring opinions, attitudes, and consumer wants..... | 432 | The effect of size and stored energy on the fracture of tubular specimens (A)..... | 454 | MOLYBDENUM Ceramic-coated molybdenum (A)..... | 1004 |
| 307 | MARKEL, A. R. C. Welded joints (C)..... | 1022 | Experimental studies of biaxially stressed mild steel in the plastics range (A)..... | 453 | MONOCOQUES. <i>See</i> Structures | |
| 482 | MARKSON, A. A. Development of an air-operated force-measuring system (A)..... | 159 | Fatigue under combined pulsating stresses (A)..... | 917 | MONSON, CLAUDE N. The present and future of the aircraft industry..... | 211 |
| 916 | MARQUIT, CARL HAESSLER Obituary..... | 1050 | The influence of the dimensional factors on the mode of yielding and fracture in medium-carbon steel—I. The geometry and size of the flat tensile bar (A)..... | 550 | MOODY, ARTHUR M. G. Gas-turbine construction (BR)..... | 263 |
| 917 | MARSHNER, R. F. Synthetic liquid fuels (D)..... | 555 | Strength and failure characteristics of metal membranes in circular bulging (A)..... | 918 | MOORE, R. S. An evaluation of cylindrical grinding performance (A)..... | 770 |
| | MARSHALL, GEORGE C. Biography..... | 71 | Strength and failure characteristics of thin circular membranes (A)..... | 158 | MOORE, STANLEY C. Tool joint design and mud flow in drilling (A)..... | 920 |
| | Honorary membership..... | 719 | The structural stability of several cast low-alloy steels at elevated temperatures (A)..... | 1021 | MORRELAND, EDWARD LEYBURN Receives Medal for Merit..... | 854 |
| 53 | MARTINELLI, RAYMOND C. Heat transfer to molten metals (correction)..... | 366 | A study of the properties of 0.5 per cent chromium—0.5 per cent molybdenum pipe steel (A)..... | 1021 | MORRIS, JACK B. Engineer-employer relationship (C).... | 1041 |
| | Melville Medal..... | 68 | Symposium on flow and fracture of metals..... | 483 | MORRISON, E. L. Southwark Station boiler air-flow model tests and operation results (A)..... | 1020 |
| 55 | Prediction of pressure drop during forced-circulation boiling of water (A)..... | 462 | METAL TESTING—CREEP Creep-testing machines (A)..... | 909 | MOSES, ELIOT B. Hydraulic problems in connection with the design of the Granby Pumping Plant (A)..... | 37 |
| 26 | | | Some 1000-F steam-pipe materials..... | 554 | MOSHER, FRED D. Locomotive firebox and boiler performance (A)..... | 360 |
| 78 | MARTINUZZI, FRANK Receives certificate of appreciation..... | 643 | METAL TESTING—FATIGUE Full-scale fatigue testing (A)..... | 542 | MOTOR VEHICLES Model testing (A)..... | 688 |
| 37 | MATERIALS HANDLING. <i>See also</i> Remote-Control Engineering Industrial truck-handling methods applied to production and distribution (A)..... | 554 | METAL TESTING—IMPACT On the impact behavior of a material with a yield point (A)..... | 916 | Torsion-bar suspensions (A)..... | 342 |
| 36 | Materials handling conference and exposition..... | 1036 | Slow-motion pictures of impact tests by means of photoelasticity (A)..... | 1015 | Tractor production (A)..... | 907 |
| 2 | Materials handling economics (A)..... | 540 | METAL TESTING—TENSION-IMPACT Discussion of the forces acting in tension impact tests of materials (A)..... | 549 | MUELLER, WILLIAM J. Frictional characteristics of O-rings with a typical hydraulic fluid (A)..... | 1019 |
| 2 | Materials handling in the distribution department of the Western Electric Company (A)..... | 635 | METALLURGY Apparatus research laboratory (A)..... | 31 | MUMFORD, ALBERT RUSSELL Biography..... | 710 |
| 9 | Materials Handling Show..... | 945 | A law of work hardening (A)..... | 452 | Nominated for regional vice-president.. | 710 |
| 0 | Mechanical manipulator (A)..... | 690 | METALS The fracture of metals (BR)..... | 774 | MURPHREE, E. V. Synthetic liquid fuels (D)..... | 555 |
| | New ASME safety code for conveyers.. | 272 | High-temperature metal (A)..... | 239 | MURRAY, A. F. It's the little things that count..... | 519 |
| | Safety (A)..... | 530 | METEOROLOGY Condensation nuclei..... | 221 | MYERS, CHARLES A. Union-management co-operation..... | 230 |
| | MATERIALS TESTING Phenolic molding material tests (A).... | 823 | Man-made blizzards (A)..... | 145 | MYERS, ROBERT DUANE Obituary..... | 1050 |
| | MATHEMATICS The basic elastic theory of vessel heads under internal pressure (A)..... | 365 | Ozone measurement (A)..... | 440 | | |
| | Bessel functions tables (A)..... | 625 | Stability of the atmosphere and its influence on air pollution..... | 407 | | |
| | Frequency-response measurements of a hydraulic power unit (A)..... | 363 | Thunderstorm chart..... | 679 | | |
| | New quarterly journal, <i>Communications on Applied Mathematics</i> | 485 | METHODS ENGINEERING Accident prevention using operations-analysis procedures..... | 528 | | |
| | Table of coefficients (A)..... | 767 | MEUSER, R. B. Vibration of a nonlinear system during acceleration through resonance (A)... | 257 | | |
| | Tensorial analysis of control systems (A)..... | 841 | | | | |
| | Vibration of a beam with concentrated mass, spring, and dashpot (A)..... | 37 | | | | |
| | MAXON, C. R. The importance of cores in die-casting design..... | 609 | | | | |
| | MAY, DONALD F. Laminating for small-boat construction (A)..... | 634 | | | | |
| | MEAGHER, EDWARD C. Elected president UET..... | 1034 | | | | |

N

- NAGLER, FORREST
Biography 711
Nominated for regional vice-president... 710
- NASH, W. A.
Effect of a concentric reinforcing ring on stiffness and strength of a circular plate (A)..... 161
- NATIONAL ASSOCIATION OF CORROSION ENGINEERS
Elects new officers 486
- NATURAL GAS
Accurate wide-range metering of natural gas with the differential-type meter (A)..... 459
Effect of the introduction of natural gas on a highly industrialized territory previously supplied with manufactured gas (A)..... 1012
High-pressure gas measurement (A)..... 458
Natural-gas industry in the United States (A)..... 403
- NATURAL-GAS PIPE LINES
Conversion of pipe lines from oil to gas transmission; the "Big Inch" and "Little Big Inch" pipe lines..... 733
- NAVAL ENGINEERING
Naval research laboratory (A)..... 756
- NAVAL VESSELS
Aircraft-carrier research (A)..... 22
- NELSON, D. B.
Prediction of pressure drop during forced-circulation boiling of water (A)..... 462
- NETTEL, FREDERICK
The universal optimum power cycle for elastic fluid turbine power plants (A)..... 355
- NEUBERGER, HANS
Condensation nuclei..... 221
- NEUMANN, E. P.
Supersonic diffusers for wind tunnels (A)..... 1014
- NEW, WINSTON R.
A laboratory for gas-turbine development..... 195
- NEWMARK, N. M.
A numerical solution for the torsion of hollow sections (A)..... 160
- NEWTON, JOHN S.
Some important considerations in the design of coal-burning steam-turbine locomotives (A)..... 365
- NICKERSON, T. S.
Heat transfer through thick insulation on cylindrical enclosures (A)..... 251
- NITROGEN
Liquid nitrogen (A)..... 349
- NONFERROUS METALS AND ALLOYS. *See also specific metals*
Lightweight airplane (A)..... 687
Molybdenum (A)..... 766
Permanent-magnet material..... 671
- NORDENHOLT, G. F.
Properties of beryllium copper (D)..... 162
- NORMANN, ARN
Awarded Rice Memorial Scholarship... 854
- NORTH, DAVID
Heat anti-icing for the airlines (A)..... 836
- NORTHROP, JOHN K.
St. Louis Medal..... 68
- NOTHMANN, G. A.
Vibration of a cantilever beam with prescribed end motion (A)..... 452
- NOWLAND, ROGER L.
Predesign research as applied to product development..... 208
- NOZZLES
Reaction tests of turbine nozzles for subsonic velocities (A)..... 1016
Reaction tests of turbine nozzles for supersonic velocities (A)..... 1017
- NUCLEAR ENERGY. *See Atomic Energy*
- NUCLEAR ENGINEERING
Nuclear engineering; basic design background and scope of a new branch of engineering..... 217
- NYE, F. N.
Traffic considerations leading to the establishment of high-speed freight service and related operating problems (A)..... 1019
- O
O'BRIEN, EUGENE W.
Accent on youth..... 5
- O'FARRELL, J. B.
Use of a technical library..... 987
- OIL FUEL. *See also Diesel Fuel Oil, Synthetic Products*
Future fuels—liquid and gaseous..... 421
Oilshale carbonization (A)..... 904
Petroleum and Diesels (A)..... 911
Problems associated with use of Diesel fuels (A)..... 461
Synthetic liquid fuel oils and shale oils (A)..... 1037
- OLSON, F. C. W.
Flow through a pipe with a porous wall (A)..... 916
- OLSON, WALTER T.
Temperature measurements and combustion efficiency in combustors for gas-turbine engines (A)..... 35
- OMOHUNDRO, G. A.
Heat transfer and fluid friction during viscous flow across banks of tubes (A)..... 252
- O'NEILL, J. PAT
The Hydrodynamics Laboratory of the California Institute of Technology (A)..... 160
- OPERATIONS ANALYSIS. *See Methods Engineering*
- OPTICS
200-inch telescope (A)..... 351
- ORDNANCE
Gun canning inspection (A)..... 627
The study of missiles resulting from accidental explosions (BR)..... 264
21-ton bomb (A)..... 444
- ORE TREATMENT
Low-grade ores (A)..... 20
Sink-float processes (A)..... 1012
- ORGANOMETALLIC COMPOUNDS
Mechanical activation—a newly developed chemical process (A)..... 36
- ORIFICES. *See Fluid Meters*
- OSBORN, H. B., JR.
Design and manufacture for profit by means of high-frequency induction heating..... 805
- OWEN, WILLIAM S.
American shipbuilding industry (BR)..... 1024
- OWENS, R. G.
Heat-pump installations (D)..... 260
- OXYGEN
Continuous determination of oxygen concentration based on the magnetic properties of gases (A)..... 36
Oxygen determination (A)..... 244
Tonnage oxygen (A)..... 535, 902
- OZONE
Ozone measurement (A)..... 440
- P
PACKINGS
Aircraft hydraulic packings..... 675
Frictional characteristics of O-rings with a typical hydraulic fluid (A)..... 1019
- PAINTING. *See Metal Coating*
- PALME, R. B.
Contact stresses in the rolling of metals—I (A)..... 916
- PALMGREN, ARVID
Dynamic capacity of rolling bearings (A)..... 1015
- PANAMA CANAL
Panama-Canal conversion (A)..... 351
- PAN-AMERICAN ENGINEERING CONGRESS
To be held in South America in 1948 or 1949..... 93
- PANEL HEATING. *See Heating*
- PAPER AND PULP
Ultrasonic paper drier (A)..... 353
Resin bonding (A)..... 760
Developments in Kraft-process recovery-unit design and performance (A)..... 551
- PARKER, E. E.
Steam turbines for resuperheat cycle (A)..... 1017
- PARKER, E. R.
Behavior of steel under biaxial stress as determined by tests on tubes (A)..... 550
- PARKER, JAMES W.
Honored by doctor of engineering degree..... 649
- PARSON, ARTHUR R.
Diesel application on the inland waterways (A)..... 835
- PARSONS, A. B.
Resigns as AIME secretary..... 932
- PARSONS, C. W. S.
Engineering an orderly lowering of prices..... 586
- PASSENGER CARS. *See Railroad Cars*
- PATRICK, D. L.
Performance characteristics of tight oak-laminated stave and solid-stave barrels (A)..... 359
- PAYNE, EARL C.
Regional standards for locomotive fuel (A)..... 360
- PEARODY, ERNEST H.
Honored by doctor of engineering degree..... 649
- PEEBLES, JAMES C.
Dean of Engineering at Illinois Institute of Technology to retire..... 376
- PENNIMAN, A. L., JR.
Director at large..... 62
- PENROD, E. B.
Heat conduction with engineering and geological application (BR)..... 843
A review of some heat-pump installations (AC)..... 260
- PERSON, H. S.
Receives gold medal of the International Committee of Scientific Management..... 275
- PERSONNEL WORK
Civil-service employment (C)..... 79
Man-machine proficiency (BR)..... 701
Personnel administration (BR)..... 467
- PETROLEUM INDUSTRY
Future fuels—liquid and gaseous..... 421
Petroleum research center (A)..... 1000
- PETROLEUM PIPE LINES
Conversion of pipe lines from oil to gas transmission; the "Big Inch" and "Little Big Inch" pipe lines..... 733
- PETROLEUM PRODUCTION
Construction of Katy Gas Cycling Plant (A)..... 912
Petroleum pump activities (A)..... 240
- PETROLEUM REFINING
Construction of Katy Gas Cycling Plant (A)..... 912
- PETROLEUM-WELL EQUIPMENT
Deep-well camera (A)..... 238
Drill pipe corrosion problems (A)..... 921
The operating characteristics and requirements of drawworks brake equipment (A)..... 921
Tool joint design and mud flow in drilling (A)..... 920
- PHILADELPHIA ENGINEERS CLUB
Celebrates 70th anniversary..... 177
- PHILBRICK, GEORGE A.
Dynamics of automatic controls (BR)..... 843
- PHILIPPIDIS, A. H.
The general proof of the principle of maximum plastic resistance (A)..... 453
- PHILLIPSON, IRVING J.
Joint training course in labor relations conducted by a textile mill and a union (A)..... 460
- PHOTOGRAPHY
Automatic focus rectifier (A)..... 234
Deep-well camera (A)..... 238
Fast astronomical plates (A)..... 147
High-speed photography (A)..... 447
Periscope camera (A)..... 17
Photographic finishes (A)..... 339
Photographic memory (A)..... 25
Television-recording camera (A)..... 18
Underwater flow photographs (A)..... 1004
- PHYSICS
AIP announces new physics magazine... 569
"Physics Today" (Ed)..... 659
The strange story of the quantum (BR)..... 469
- PHYSIOLOGY. *See Biomechanics*
- PICKLING
Descaling plant (A)..... 347
- PIGORS, PAUL
Labor-management conflict or co-operation?..... 531
- PIGOTT, R. J. S.
New SAE president..... 273
- PIPE AND PIPING
Code for pressure piping to be revised... 1040
Further investigation on the graphitization of piping for the EEI and AEIC (A)..... 1021
Some 1000-F steam pipe materials..... 554
- PIPE FACTORS. *See Fluid Meters*
- PIPE FITTINGS
Threadless pipe fittings (A)..... 148
- PIPE LINES. *See Natural-Gas Pipe Lines, Petroleum Pipe Lines*
- PISTON RINGS
The shape of a piston ring in its unrestrained state (A)..... 101

| | | | | | | | | |
|---|---|------|--|------|---|-----------------------|--|--|
| PLANNING | | | POWER PLANTS | | | PUMPING PLANTS | | |
| 580 | Freedom and security (BR)..... | 925 | The gas turbine with a waste-heat boiler..... | 515 | Hydraulic problems in connection with the design of the Granby Pumping Plant (A)..... | 37 | | |
| | Industrial planning (D)..... | 464 | POWER PLANTS—GAS-TURBINE | 627 | Pumping requirements for irrigation on Columbia Basin and Central Valley Projects of the Bureau of Reclamation (A)..... | 417 | | |
| | Long-range industrial planning..... | 137 | Electric utility gas turbine (A)..... | 691 | | | | |
| | National security (A)..... | 143 | Gas and steam turbo plant (A)..... | 552 | PUMPS | | | |
| PLASTICITY. See also Properties of Materials | | | The gas turbine as a stationary prime mover..... | 553 | Performance criteria for positive-displacement pumps and fluid motors (A)..... | 698 | | |
| 359 | Experimental studies of biaxially stressed mild steel in the plastics range (A)..... | 453 | Gas-turbine power plants for operation with low-cost fuel (A)..... | 195 | PERCELL, T. E. | 61 | | |
| 360 | The general proof of the principle of maximum plastic resistance (A)..... | 453 | A laboratory for gas-turbine development..... | 438 | Regional vice-president..... | | | |
| 649 | Plastic deformation of a circular diaphragm under pressure (A)..... | 453 | Mobile gas-turbine plant (A)..... | 768 | PLYE, J. J. | 918 | | |
| | The propagation of plasticity in uniaxial compression (A)..... | 549 | Performance of commercial gas turbines (A)..... | 340 | Silicone rubber—new properties for design engineers (A)..... | | | |
| 376 | Some properties of a mechanical model of plasticity (A)..... | 453 | POWER PLANTS—HYDROELECTRIC | 910 | Pyrometers. See Instruments—Temperature | | | |
| | The stress-strain laws of the mathematical theory of plasticity—a survey of recent progress (A)..... | 454 | Canadian hydroelectric progress (A)..... | 837 | | | | |
| 62 | Symposium on flow and fracture of metals..... | 483 | Water power (A)..... | 837 | | | | |
| PLASTICS | | | POWER PLANTS—STEAM | 691 | | | | |
| 843 | Bibliography..... | 300 | Development in Milwaukee of burning pulverized coal (A)..... | 837 | Q | | | |
| 260 | Fiberglass-reinforced plastics (A)..... | 246 | Fuels performance at Port Washington Station (A)..... | 837 | QUALITY CONTROL | | | |
| | Major advances in plastics during 1947. Nonmetallic bearings. III—Properties and applications of laminated phenolic bearings..... | 298 | Gas and steam turbo plant (A)..... | 695 | A discussion of modern quality control techniques (A)..... | 461 | | |
| 275 | Phenolic molding material tests (A)..... | 823 | Research program on steam contamination and turbine-blade deposits in high-pressure power-plant operation at the Armour Research Foundation (A)..... | 762 | Modern quality control (A)..... | 460 | | |
| 79 | Plastic tooling comes of age (A)..... | 629 | Steam-electric station (A)..... | 757 | Some engineering aspects of quality control..... | 205 | | |
| 701 | Plastics handbook (A)..... | 245 | Steam-power stations (A)..... | 829 | Technique of experimenting in the factory..... | 593 | | |
| 467 | Plastics research (A)..... | 911 | Steam-turbine costs (A)..... | 1017 | QUANTUM THEORY. See Physics | | | |
| PLATES | | | The 2000-psi, 1050 F, and 1000 F reheat cycle at the Philip Sporn and Twin Branch steam-electric stations (A)..... | 354 | QUARTZ | | | |
| 421 | Bending of rectangular plates subjected to a uniformly distributed lateral load and to tensile or compressive forces in the plane of the plate (A)..... | 1014 | POWER PRESSES | 840 | Quartz-crystal shortage (A)..... | 451 | | |
| 1000 | The bending of symmetrically loaded circular plates of variable thickness (A)..... | 365 | Large hydraulic forging presses (A)..... | | | | | |
| 733 | Critical shear stress of plates above the proportional limit (A)..... | 160 | PRAGER, WILLIAM | | | | | |
| 912 | Effect of a concentric reinforcing ring on stiffness and strength of a circular plate (A)..... | 161 | The stress-strain laws of the mathematical theory of plasticity—a survey of recent progress (A)..... | 454 | R | | | |
| 240 | Investigation of the variation of point unit heat-transfer coefficients for laminar flow over an inclined flat plate (A)..... | 916 | PRECISION INVESTMENT CASTING. See Foundry Practice | | RABI, I. I. | | | |
| 912 | Note on the bending of circular plates of variable thickness (A)..... | 917 | PRESSURE DROP. See Heat Transfer | | The strange story of the quantum (BR)..... | 469 | | |
| 921 | On the stability of plates reinforced by ribs (A)..... | 917 | PRESSURE VESSELS | | RADIANT HEATING. See Heating | | | |
| 920 | Three-dimensional solution for the stress concentration around a circular hole in a plate of arbitrary thickness (A)..... | 550 | The basic elastic theory of vessel heads under internal pressure (A)..... | 365 | RADIATION. See Atomic Energy, Radioactivity | | | |
| 177 | PLYWOOD. See also Veneer | | Code restrictions on welding (C)..... | 772 | RADIO COMMUNICATION | | | |
| 843 | Factory layout and equipment for the mass production of molded plywood furniture (A)..... | 634 | Errata to 1948 addenda to ASME Unified Pressure Vessel Code..... | 923 | Quartz-crystal shortage (A)..... | 451 | | |
| 453 | PONDROY, F. C. | | Proposed rules for lined vessels..... | 485 | RADIOACTIVITY | | | |
| | Materials handling in the distribution department of the Western Electric Company (A)..... | 635 | PRICES. See Economics | | Atomic energy and medicine (A)..... | 242 | | |
| 460 | POLITICS | | PRINCE, D. C. | 137 | Mechanical manipulator (A)..... | 690 | | |
| 234 | Bankruptcy of "internationalist" thinking (BR)..... | 336 | Long-range industrial planning..... | | Radioactive tracers (A)..... | 536 | | |
| 238 | POLLOCK, W. A. | | PRODUCT DESIGN | | RAILROAD BRAKES | | | |
| 147 | Fuels performance at Port Washington Station (A)..... | 837 | Co-ordination of design and manufacture in the transportation and generator division of Westinghouse (A)..... | 456 | The effect of foundation-brake equipment on emergency-stop distances (A)..... | 249 | | |
| 447 | Reduction of turbine and superheater deposits by internal treatment with magnesium chloride in the absence of phosphate (A)..... | 694 | Design for production (A)..... | 456 | Weight reduction—freight cars: AAR standard air brake—AB single-capacity freight-brake equipment (A)..... | 254 | | |
| 339 | POND, C. E. | | It's the little things that count..... | 519 | RAILROAD CARS | | | |
| 25 | Better locomotive servicing facilities on the Norfolk and Western Railway (A)..... | 361 | Product design for economical manufacture (A)..... | 456 | The Association of American Railroads standard car coupler (A)..... | 454 | | |
| 18 | PONOMAREFF, A. I. | | PRODUCT DEVELOPMENT | | Decibel level (A)..... | 833 | | |
| 1004 | Axial-flow compressors for gas turbines (A)..... | 159 | Pre-design research as applied to product development..... | 208 | Development and trend in the design of hopper-discharge types of railway cars (A)..... | 253 | | |
| 569 | PORITSKY, H. | | User research as a tool in developing new industrial products (A)..... | 459 | Economics of application of high-strength steel in freight cars (A)..... | 255 | | |
| 659 | Polygonal approximation method in the hodograph plane (A)..... | 770 | PRODUCT INSPECTION | | Freight-car construction (A)..... | 254 | | |
| 469 | POWDER METALLURGY | | Some engineering aspects of quality control..... | 205 | Freight car truck progress (A)..... | 253 | | |
| 347 | Powder metallurgy (A)..... | 244 | PROPERTIES OF MATERIALS. See also Metal Testing, and specific materials | | Opportunities in freight-car design (A)..... | 457 | | |
| 531 | Powder metallurgy: its physics and productivity (BR)..... | 638 | The fracture of metals (BR)..... | 774 | Progress in railway mechanical engineering 1946-1947..... | 321 | | |
| 040 | Powdered-metal friction material..... | 869 | General features of plastic-elastic problems as exemplified by some particular solutions (A)..... | 917 | Protection of lading and equipment (A)..... | 1018 | | |
| 021 | Reports from Germany (A)..... | 342 | Permanent-magnet material..... | 671 | Roller-bearing applications for modern freight cars (A)..... | 255 | | |
| 554 | POWER. See also Atomic Energy, Electric Power, Windmills | | Research on rubber for mechanical engineers..... | 911 | The South African railways..... | 523 | | |
| 48 | Electric power (A)..... | 898 | Silicone rubber—new properties for design engineers (A)..... | 118 | Thermal environment of railroad passenger cars (A)..... | 832 | | |
| | Energy in the engine exhaust (A)..... | 1014 | Unappreciated advantages of modern gray iron..... | 918 | Visual passenger comfort (A)..... | 832 | | |
| | The engineer and internationalism—power industry in this country an example of his effective method of approach..... | 399 | PROSTHETIC DEVICES | 667 | Weight reduction—freight cars: AAR standard air brake—AB single-capacity freight-brake equipment (A)..... | 254 | | |
| | How gas turbines fit into future power patterns (A)..... | 553 | Artificial-limb research (A)..... | 33 | RAILROAD MECHANICAL ENGINEERING | | | |
| | 1948 Power Show promises innovations..... | 930 | PSYCHOLOGY | 701 | Progress in railway mechanical engineering 1946-1947..... | 321 | | |
| | Prime Movers Committee (Ed)..... | 397 | Man-machine proficiency (BR)..... | 803 | Roller-bearing applications for modern freight cars (A)..... | 255 | | |
| | | | PUSHES, ALFONS | | RAILROADS | | | |
| | | | Labor relations in a nutshell..... | | Intensive utilization of coal-fired steam locomotives (A)..... | 361 | | |
| | | | PULVERIZED COAL | | The South African railways..... | 523 | | |
| | | | Development in Milwaukee of burning pulverized coal (A)..... | 837 | Traffic considerations leading to the establishment of high-speed freight service and related operating problems (A)..... | 1019 | | |
| | | | Developments in burning pulverized coal..... | 967 | RAMJETS | | | |
| | | | Experimental combustion of pulverized coal at atmospheric and elevated pressures (A)..... | 838 | Ramjet helicopter..... | 27 | | |
| | | | PUMPHREY, KEITH FRANKLIN | 1050 | | | | |
| | | | Obituary..... | | | | | |

- REED, F. E.
The use of the centrifugal pendulum absorber for the reduction of linear vibration (A)..... 1015
- REED, W. A.
High-output combustion of ethyl alcohol and air (A)..... 157
- REFRACTORIES
Chrome-base concrete (A)..... 451
- REFRIGERANTS
Condensation of refrigerant vapors—apparatus and film coefficients for Freon-12 (A)..... 251
Condensation on six finned tubes in a vertical row (A)..... 252
- REFRIGERATION. *See* Heat Pumps
- REGULATION. *See* Hydraulic Turbines
- REHABILITATION
Taylor report on Germany (A)..... 688
- REICH, ROBERT A.
Modern projection welding (A)..... 698
- REINEKE, L. H.
Investigation of energy requirements for inserted-point circular headsaws (A)..... 913
- REINER, M.
A law of work hardening..... 452
- REMOTE-CONTROL ENGINEERING
Some engineering problems of atomic-energy research..... 729
- RESEARCH. *See also* Bibliographic Research, High Temperatures
Armed forces seek file of research and development engineers..... 932
Atomic energy fellowships offered by National Research Council..... 487
Atomic-energy program (A)..... 820
British atomic-research center (A)..... 825
CED announces expanded research program..... 852
Conference on research administration..... 931
Corrosion testing (A)..... 152
Cryogenics (A)..... 146
Design of vane turns for a large water tunnel (A)..... 631
Directory of testing and research laboratories available..... 170
Engineering research..... 978
Experimental engineering research methods..... 793
Experimental research station (A)..... 617
Fellowships offered in gas technology and hydrodynamics research..... 490
The Hydrodynamics Laboratory of the California Institute of Technology (A)..... 160
The industrial application of nuclear energy..... 295
National Research Council seeks to improve research services..... 853
Navy seeks qualified men for expanded program..... 484
New Dutch publication, *Applied Scientific Research*..... 272
New monthly British Journal, *Research*..... 273
New research society organized..... 376
Nuclear science laboratory (A)..... 441
Petroleum research center (A)..... 1000
Predesign research as applied to product development..... 208
The present and future of the aircraft industry..... 211
Radioactive tracers (A)..... 536
Research administrators hold conference..... 174
Research program planned by army for reserve officers..... 484
Sloan fellowships at M.I.T. re-established..... 656
Some engineering problems of atomic-energy research..... 729
Technical information committee (A)..... 907
- RETTALIATA, JOHN T.
Dean of engineering at Illinois Institute of Technology..... 376
Locomotive gas-turbine power plant (D)..... 771
- REUNERT, THEODORE
Obituary..... 1050
- REYNOLDS NUMBER
Evaluation of Reynolds number by graphical methods..... 876
- RICH, C. S.
New AIEE editor..... 932
- RICH, GEORGE R.
Awarded honorary degree..... 715
Data book for civil engineers (BR)..... 561
- RICHARDSON, MARION B.
Civil-service employment (C)..... 79
- RICHARDSON, ROBERT D.
Continuous determination of oxygen concentration based on the magnetic properties of gases (A)..... 36
- RINGLE, C. L.
Steam-turbine governor regulation (A)..... 698
- RIVERS
Scale models in hydraulic engineering (BR)..... 842
- RIVETED JOINTS
Powdered-metal friction material..... 869
- ROBERTS, ARTHUR, JR.
Biography..... 711
Nominated for regional vice-president..... 710
- ROBERTSON, B. P.
Oil flow and temperature relations in lightly loaded journal bearings (A)..... 769
- ROBERTSON, J. M.
Design of vane turns for a large water tunnel (A)..... 631
- ROBERTSON, W. T.
Construction of Katy Gas Cycling Plant (A)..... 912
- ROBINSON, C. S. L.
Flow of a compressible fluid through a series of identical orifices (A)..... 452
- ROBINSON, ERNEST L.
Some 1000-F steampipe materials..... 554
- ROBISON, H. E.
Research program on steam contamination and turbine-blade deposits in high-pressure power-plant operation at the Armour Research Foundation (A)..... 695
- ROCKETS
Automatic rocket launcher (A)..... 1009
Project 3401 (A)..... 148
Rocket exhibit..... 538
- ROGERS, HARRY S.
The education of the engineer..... 895
- ROSSINI, FREDERICK D.
Heats of formation and chemical thermodynamic properties (A)..... 839
- ROTORS
Centrifugal and thermal stresses in rotating disks (A)..... 550
Gyroscopic effects on the critical speeds of flexible rotors (A)..... 550
- ROUSE, HUNTER
Receives George Westinghouse Award..... 719
- ROWE, GILBERT T.
Junior Award..... 68
- ROWE, H. J.
Engineering for aluminum-alloy castings..... 505, 774
- ROWE, HARTLEY
Receives Medal for Merit..... 854
- ROWLEY, L. N.
The gas turbine as a stationary prime mover..... 552
- RUBBER. *See also* Synthetic Products
Advances in rubber during 1947..... 307
Bibliography..... 122, 309
Cold rubber (A)..... 763
Nonmetallic bearings I—Some characteristics of soft rubber as a material for water-lubricated bearings..... 599
Nonmetallic bearings. IV—Reduction of wear in rubber stern bearings by flow-controlled continuous-film method
Research on rubber for mechanical engineers..... 607
Rubber in the automotive industry (A)..... 118
Rubber research (A)..... 630, 237
Silicone rubber—new properties for design engineers (A)..... 918
- RUBBER RESEARCH
High polymers (A)..... 619
- RUBBER SPRINGS
Research on rubber for mechanical engineers..... 118
- RUEGG, F. W.
Definitions of heats of combustion of a fuel and current methods for their determination (A)..... 920
- RUSH, D.
High-output combustion of ethyl alcohol and air (A)..... 157
- RYAN, WILLIAM F.
American miracle (BR)..... 81
- RYDER, E. A.
Thermal-resistance measurements of joints between stationary metal surfaces (A)..... 696
- SADOWSKY, M. A.
Three-dimensional solution for the stress concentration around a circular hole in a plate of arbitrary thickness (A)..... 550
- SAFETY ENGINEERING
Accident prevention using operations-analysis procedures..... 528
ASA issues revisions to safety codes..... 568
Crash injury research (A)..... 439
Integrating safety engineering in engineering college curricula (A)..... 632
Personal factors for developing safety consciousness (A)..... 633
Safety in the home (A)..... 441
- SAMANS, WALTER
Code restrictions on welding (C)..... 772
- SANITARY ENGINEERING
Engineering and the medical sciences (D)..... 1022
- SATTERFIELD, C. N.
Generalized thermodynamics of high-temperature combustion (A)..... 840
- SAUNDERS, D. J.
Demineralization processes (A)..... 251
- SAW MILLS
Integrated forest utilization (D)..... 463
- SAWS
Investigation of energy requirements for inserted-point circular headsaws (A)..... 913
- SCHABTACH, CARL
Mechanical investigations of gas-turbine components (A)..... 1020
- SCHERMAN, BURTON
Engineering Societies Personnel Service (C)..... 383
- SCHLEMMER, A. E.
Drill pipe corrosion problems (A)..... 921
- SCHMIDT, A. O.
Distribution of heat generated in drilling (A)..... 628
Influence of steel hardness in face-milling (A)..... 1018
- SCHMITTER, WALTER P.
Engineering training..... 743
- SCHROEDER, GEORGE M.
The present status of bonded fabrics (A)..... 1018
- SCHROEDER, W. C.
Synthetic liquid fuels in the United States (AC)..... 556
Underground gasification—an account of experiments on coal conducted at Gorgas, Ala..... 127
- SCHWEITER, P. H.
Energy in the engine exhaust (A)..... 1014
- SCIENCE
EJC asks president to push National Science Foundation..... 172
150 years of science (Ed)..... 957
Science and the whole man..... 113
The scientist speaks (Ed)..... 504
- SCIENTIFIC PUBLICATIONS
The "Philosophical Magazine" (Ed)..... 957
"Physics Today" (Ed)..... 659
- SCIENTIFIC RESEARCH SOCIETY OF AMERICA
New research society organized..... 376
RESA (Ed)..... 728
- SCIENTIFIC SOCIETIES
RESA (Ed)..... 728
- SCOTT, G. E., JR.
Steam-turbine governor regulation (A)..... 698
- SCREW THREADS
Agreement near on unification of screw threads by Great Britain, Canada, and United States..... 930
- SCHIVNER, F. H.
Stresses and displacements in a semi-infinite elastic body with parabolic cross section acted on by its own weight only (A)..... 1015
- SEAMAN, JOSEPH
Obituary..... 1050
- SEDER, LEONARD A.
Technique of experimenting in the factory..... 593
- SEIFING, FREDERICK G.
Unappreciated advantages of m-Jern gray iron..... 667
- SELBO, M. L.
Results of accelerated tests and long-term exposures on glue joints in laminated beams (A)..... 358
- SENNSTROM, H. R.
A study of flow patterns in baffled heat exchangers (A)..... 252
- SERVOMECHANISMS. *See also* Automatic Control

- SERVOMECHANISMS (continued)**
 Frequency-response measurements of a hydraulic power unit (A)..... 363
 Magnetic fluid clutch (A)..... 442
 Servomechanisms (BR)..... 925
- SEYMOUR, JAMES ALWARD**
 Biography..... 708
 Seymour Memorial Fund established... 708
- SEYMOUR, R. B.**
 The present status of bonded fabrics (A)..... 1018
- SHACKELFORD, D. M.**
 Jet propulsion progress (BR)..... 368
- SHAFFER, ALFRED E. M.**
 Obituary..... 1050
- SHAFTS**
 Hubs for spline shafts (A)..... 768
 Numerical solution of elastoplastic torsion of a shaft of rotational symmetry (A)..... 1015
 Straight-sided splines..... 738
- SHALE OIL. See Oil Fuel**
- SHAPIRO, A. H.**
 High-output combustion of ethyl alcohol and air (A)..... 157
- SHAW, F. S.**
 Numerical solution of elastoplastic torsion of a shaft of rotational symmetry (A)..... 1015
- SHAW, M. C.**
 The hydrosphere—a new hydrodynamic bearing (A)..... 37
 Mechanical activation—a newly developed chemical process (A)..... 36
- SHEEHAN, W. M.**
 Director at large..... 62
- SHELLS**
 A strain-energy expression for thin elastic shells (A)..... 917
- SHEPHERD, D. G.**
 A design method for counterflow shell-and-tube heat exchangers for gas turbines (A)..... 357
- SHERMAN, JOHN T.**
 Sink-float processes (A)..... 1012
- SHERMAN, RALPH A.**
 Biography..... 712
 Nominated for director at large..... 712
- SHERWOOD, THOMAS K.**
 Receives Medal for Merit..... 854
- SHIPBUILDING**
 Aluminum ships (A)..... 26
 American shipbuilding industry (BR)..... 1024
- SHIP-MODEL TESTING**
 Underwater flow photographs (A)..... 1004
- SHIPS. See also Boats, Naval Vessels, Towboats**
 Diesels on salt water (A)..... 835
 New-type ships (A)..... 350
 The original Froude hull models..... 136
- SHORT, BYRON E.**
 The effect of baffle height and baffle clearance on heat transfer and pressure drop in heat exchangers (A)..... 36
- SHRINK FITS**
 Liquid nitrogen (A)..... 349
- SIDLER, PAUL R.**
 Performance of commercial gas turbines (A)..... 768
- SILICONES**
 Silicone golf-ball center (A)..... 343
 Silicone rubber—new properties for design engineers (A)..... 918
- SILLCOX, LEWIS K.**
 Awarded honorary degree..... 715
- SIMPSON, O. C.**
 Some engineering problems of atomic-energy research..... 729
- SINNOTT, EDMUND W.**
 Science and the whole man..... 113
- SIPP, E. A.**
 Weight reduction—freight cars (A)..... 254
- SKROTZKI, B. G. A.**
 The gas turbine as a stationary prime mover..... 552
 Student counseling in New York City (D)..... 261
- SLAYTER, GAMES**
 Honored by IRI..... 174
- SLEPIAN, JOSEPH**
 Receives Edison Medal..... 271
- SLIDE RULES**
 Logarithmic dividing machine (A)..... 448
- SLOAT, BENJAMIN CROSSBY**
 Obituary..... 1050
- SMEALLIE, R. D.**
 Nonmetallic bearings. IV—Reduction of wear in rubber stern bearings by flow-controlled continuous-film method..... 607
- SMITH, ELLIOTT DUNLAP**
 The education of professional students for citizenship..... 959
- SMITH, G. V.**
 A study of the properties of 0.5 per cent chromium—0.5 per cent molybdenum pipe steel (A)..... 1021
- SMITH, J. F. DOWNIE**
 Research on rubber for mechanical engineers..... 118
- SMITH, MABEL C.**
 ASME receptionist dies..... 724
- SMITH, P. C.**
 Co-ordination of design and manufacture in the transportation and generator division of Westinghouse (A)..... 456
- SMITH, R. R.**
 Manufacturing laminated tennis rackets (D)..... 262
- SNOKE**
 Condensation nuclei..... 221
 Overfire jets (A)..... 22
 Stability of the atmosphere and its influence on air pollution..... 407
 Streamlining effect on air resistance and smoke lifting on steam locomotives (A)..... 249
- SNOW**
 Man-made blizzards (A)..... 145
- SOCIAL RELATIONS**
 Social aspects of decentralization..... 532
- SOCIETY OF PLASTICS ENGINEERS**
 Professional membership grade established by SPE..... 486
- SOIL MECHANICS**
 International congress to be held..... 486
- SOLAR ENERGY**
 Solar-heat accumulator (A)..... 245
- SOROKA, WALTER W.**
 It's the little things that count (D)..... 923
- SOUND RECORDING**
 Magnetic belt recorder (A)..... 540
- SOUTH AFRICA**
 The South African railways..... 523
- SPECIFICATIONS**
 Specifications Institute organized..... 854
- SPECTROSCOPIC ANALYSIS**
 Molecular constants from spectroscopic data (A)..... 839
 Research program on steam contamination and turbine-blade deposits in high-pressure power-plant operation at the Armour Research Foundation (A)..... 695
 Spectroradiometer (A)..... 341
- SPENCE, HUBERT L.**
 The Association of American Railroads standard car coupler (A)..... 454
- SPINDLES**
 Spindle dynamics (A)..... 622
- SPINK, L. K.**
 Accurate wide-range metering of natural gas with the differential-type meter (A)..... 459
- SPLINES. See also Keys and Keyways**
 Broach requirements for spline shafts and fittings..... 680
- SPORN, PHILIP**
 The 2000-Psi, 1050 F, and 1000 F reheat cycle at the Philip Sporn and Twin Branch steam-electric stations (A)..... 354
- SPRATT, H. PHILIP**
 The original Froude hull models..... 136
- SPRINGS. See also Rubber Springs**
 A new approach to the design of dynamically loaded extension and compression springs (A)..... 631
- STAMPER, H. N.**
 Construction of Katy Gas Cycling Plant (A)..... 912
- STANARD, CHARLES H.**
 Involute-spline experience (A)..... 768
- STANDARDS**
 Agreement near on unification of screw threads by Great Britain, Canada, and United States..... 1033
 American progress in standardization discussed at ASA meeting..... 648
 ASME steamlines standards procedure..... 768
 Hubs for spline shafts (A)..... 1011
 Length standardization (A)..... 150
 Light-wave standard (A)..... 817
 Standard locomotive practice (A)..... 738
 Straight-sided splines..... 776
 Symbols, signs, and abbreviations (BR)..... 37
- STRANO, C. D., JR.**
 The hydrosphere—a new hydrodynamic bearing (A)..... 37
- STAPLE-FIBER MACHINERY**
 Reports from Germany..... 621
- STATISTICAL METHODS**
 "Economic curious" (D)..... 922
 Free course in statistical methods offered..... 382
 Statistical methods in engineering and industry: postwar development..... 818
 Technique of experimenting in the factory..... 593
- STEAM**
 A subsaturation reheat cycle (A)..... 256
- STEAM CONTAMINATION. See Steam Turbines**
- STEAM TURBINES**
 Design of main cylinder joints for steam turbines (A)..... 698
 High-pressure turbine deposit experience (A)..... 840
 Low silica content of boiler water minimizes turbine silica deposits (A)..... 695
 Prevention of turbine-blade deposits (A)..... 694
 Reaction tests of turbine nozzles for subsonic velocities (A)..... 1016
 Reaction tests of turbine nozzles for supersonic velocities (A)..... 1017
 Reduction of turbine and superheater deposits by internal treatment with magnesium chloride in the absence of phosphate (A)..... 694
 Research program on steam contamination and turbine-blade deposits in high-pressure power-plant operation at the Armour Research Foundation (A)..... 695
 Russian steam turbines (A)..... 441
 Steam turbines for resuperheat cycle (A)..... 1017
 Steam-turbine governor regulation (A)..... 698
 Turbine-blade deposits—Burlington Generating Station (A)..... 694
- STEEL. See also Gray Iron**
 Hydrogen attack on carbon steels..... 414
- STEEL ALLOYS**
 Further investigation on the graphitization of piping for the EEI and AEIC (A)..... 1021
 Molybdenum (A)..... 766
 Permanent-magnet material..... 671
 Stainless steels book..... 450
 The structural stability of several cast low-alloy steels at elevated temperatures (A)..... 1021
 A study of the properties of 0.5 per cent chromium—0.5 per cent molybdenum pipe steel (A)..... 1021
- STEINBERG, S. S.**
 Continues good-will tour of Latin America..... 783
- STEPHAN, FREDERICK F.**
 Measuring opinions, attitudes, and consumer wants..... 432
- STEPHENSON, GEORGE**
 Stephenson centenary (A)..... 822
- STERNBERG, E.**
 Three-dimensional solution for the stress concentration around a circular hole in a plate of arbitrary thickness (A)..... 550
- STETSON, GEORGE A.**
 Honored by Stevens Institute..... 271
- STEVENS, BROOKS**
 Visual passenger comfort..... 832
- STEWART, C. D.**
 The effect of foundation-brake equipment on emergency-stop distances (A)..... 249
- STILLMAN, THOMAS BLISS**
 Obitary..... 1050
- STOKES**
 Research on spreader stokers planned... 650
- STONE, M. D.**
 Large hydraulic forging presses (A)..... 840
- STORAGE**
 Gun canning inspection (A)..... 627
- STOVALL, E. E.**
 High-pressure gas measurement (A)..... 458
- STRAIN GAGES**
 Stability of SR-4 electric-strain gages and methods for their waterproofing and protection in field service (A)..... 364
- STREAMLINING. See Locomotives—Steam**
- STRENGTH OF MATERIALS. See Properties of Materials, Testing Machines**
- STRESSES AND STRAINS. See also Fatigue, Torsion**
 Behavior of steel under biaxial stress as determined by tests on tubes (A)..... 550
 Centrifugal and thermal stresses in rotating disks (A)..... 550
 Contact stresses in the rolling of metals—I (A)..... 916
 Critical shear stress of plates above the proportional limit (A)..... 160
 Effect of bending rigidity of stringers upon stress distribution in reinforced

| | | | | | |
|--|------|--|--|--|--|
| STRESSES AND STRAINS (continued) | | | | | |
| monocoque cylinder under concentrated transverse loads (A) | 160 | | | | |
| Effect of a concentric reinforcing ring on stiffness and strength of a circular plate (A) | 161 | | | | |
| Fracture of gray-cast-iron tubes under biaxial stresses (A) | 918 | | | | |
| A general deformation law (A) | 454 | | | | |
| The influence of the dimensional factors on the mode of yielding and fracture in medium-carbon steel—I. The geometry and size of the flat tensile bar (A) | 550 | | | | |
| The interaction of discontinuity surfaces in plastic fields of stress (A) | 549 | | | | |
| Large deformations of an elastic solid (A) | 453 | | | | |
| A new method of making high-speed compression tests on small copper cylinders (A) | 453 | | | | |
| Numerical solution of elastoplastic torsion of a shaft of rotational symmetry (A) | 1015 | | | | |
| On the impact behavior of a material with a yield point (A) | 916 | | | | |
| The propagation of plasticity in uniaxial compression (A) | 549 | | | | |
| A strain-energy expression for thin elastic shells (A) | 917 | | | | |
| Strength and failure characteristics of metal membranes in circular bulging (A) | 918 | | | | |
| Strength and failure characteristics of thin circular membranes (A) | 158 | | | | |
| The stress-strain laws of the mathematical theory of plasticity—a survey of recent progress (A) | 454 | | | | |
| Stress-strain relations for finite elastoplastic deformations (A) | 549 | | | | |
| Stresses and displacements in a semi-infinite elastic body with parabolic cross section acted on by its own weight only (A) | 1015 | | | | |
| Three-dimensional solution for the stress concentration around a circular hole in a plate of arbitrary thickness (A) | 550 | | | | |
| STRUCTURES | | | | | |
| Effect of bending rigidity of stringers upon stress distribution in reinforced monocoque cylinder under concentrated transverse loads (A) | 160 | | | | |
| International congress to be held | 486 | | | | |
| Large displacements with small strains in loaded structures (A) | 365 | | | | |
| On the design of large elevator platforms (A) | 917 | | | | |
| The partitioning of matrices in structural analysis (A) | 453 | | | | |
| STUBING, A. F. | | | | | |
| Economics of application of high-strength steel in freight cars (A) | 255 | | | | |
| SUCKFIELD, G. A. | | | | | |
| Development and trend in the design of hopper-discharge types of railway cars | 253 | | | | |
| SUDDUTH, H. N. | | | | | |
| Weight reduction—freight cars: AAR standard air brake—AB single-capacity freight-brake (A) | 254 | | | | |
| SULLIVAN, JAMES E. | | | | | |
| Cockpit-design problems of high-altitude high-speed aircraft | 883 | | | | |
| SULLIVAN, W. A. | | | | | |
| Mechanisms of combustion and their relation to oil-burner design (A) | 364 | | | | |
| SUPERHEATERS | | | | | |
| Reduction of turbine and superheater deposits by internal treatment with magnesium chloride in the absence of phosphate (A) | 694 | | | | |
| Superheater tube failures (A) | 625 | | | | |
| SUPERSONIC FLOW | | | | | |
| Supersonic diffusers for wind tunnels (A) | 1014 | | | | |
| SUPERSONICS | | | | | |
| An experimental determination of the velocity of sound in superheated steam by ultrasonics (A) | 257 | | | | |
| Supersonic sound waves (A) | 156 | | | | |
| Ultrasonic paper drier (A) | 353 | | | | |
| SURFACE HARDENING | | | | | |
| Design and manufacture for profit by means of high-frequency induction heating | 805 | | | | |
| SURFACE INSPECTION | | | | | |
| Electron-diffraction instrument (A) | 153 | | | | |
| SWAINGER, K. H. | | | | | |
| Large displacements with small strains in loaded structures (A) | 365 | | | | |
| SWINDELLS, J. F. | | | | | |
| Measurements of the combined frictional and thermal behavior in journal-bearing lubrication (A) | 457 | | | | |
| SYKES, WILFRED | | | | | |
| Award of merit of the Chicago Technical Societies Council | 715 | | | | |
| SYMBOLS | | | | | |
| Symbols, signs, and abbreviations (BR) | 776 | | | | |
| SYNTHETIC MATERIALS | | | | | |
| Advances in rubber during 1947 | 307 | | | | |
| SYNTHETIC PRODUCTS. See also Silicones | | | | | |
| Cold rubber (A) | 763 | | | | |
| High polymers (A) | 619 | | | | |
| High-pressure hydrogenation (A) | 905 | | | | |
| New synthetic rubber (A) | 244 | | | | |
| Rubber research (A) | 237 | | | | |
| Synthesis-gas manufacture (A) | 342 | | | | |
| Synthetic crystals (A) | 447 | | | | |
| Synthetic detergents (A) | 439 | | | | |
| Synthetic liquid fuels (D) | 555 | | | | |
| T | | | | | |
| TALBOURDET, G. J. | | | | | |
| Motion analysis of several intermittent variable-speed mechanisms featuring zero or near-zero acceleration and deceleration conditions at the start and at the end of the motion of the output shaft (A) | 630 | | | | |
| TAXATION | | | | | |
| Taxes and the budget (A) | 17 | | | | |
| TAYLOR, PAUL R. | | | | | |
| Effect of the introduction of natural gas on a highly industrialized territory previously supplied with manufactured gas (A) | 1012 | | | | |
| TECHNOLOGY. See Engineering | | | | | |
| TEICHMANN, O. E. | | | | | |
| Scale models in hydraulic engineering (BR) | 842 | | | | |
| TELESCOPES. See Optics | | | | | |
| TELEVISION | | | | | |
| Television (A) | 693 | | | | |
| Television network extensions (A) | 443 | | | | |
| Television-recording camera (A) | 18 | | | | |
| TELFORD, C. J. | | | | | |
| Investigation of energy requirements for inserted-point circular headsaws (A) | 913 | | | | |
| TEMIN, J. T. | | | | | |
| Designing for high-frequency induction hardening (A) | 696 | | | | |
| TEMPERATURE. See High Temperature, Instruments—Temperature, Low Temperature | | | | | |
| TEMPLIN, R. L. | | | | | |
| Development of a high-speed lathe for machining aluminums (A) | 161 | | | | |
| TENNIS RACKETS | | | | | |
| Manufacturing laminated tennis rackets (D) | 262 | | | | |
| TESTING. See Materials Testing | | | | | |
| TESTING MACHINES | | | | | |
| Creep-testing machine (A) | 909 | | | | |
| Dynamic testing machine (A) | 438 | | | | |
| 5,000,000-lb testing machine (A) | 900 | | | | |
| The Instron tensile tester (A) | 1018 | | | | |
| Worm-gear testing machine (A) | 24 | | | | |
| TEXTILE INDUSTRY | | | | | |
| Joint training course in labor relations conducted by a textile mill and a union (A) | 460 | | | | |
| The present status of bonded fabrics (A) | 1018 | | | | |
| Spindle dynamics (A) | 622 | | | | |
| Weaving machine (A) | 689 | | | | |
| TEXTILES | | | | | |
| The Instron tensile tester (A) | 1018 | | | | |
| Photographic finishes (A) | 339 | | | | |
| THERMOCOUPLES. See Instruments—Temperature | | | | | |
| THERMODYNAMICS | | | | | |
| Generalized thermodynamics of high-temperature combustion (A) | 840 | | | | |
| Thermodynamic properties of gas mixtures encountered in gas-turbine and jet-propulsion processes (A) | 257 | | | | |
| The universal optimum power cycle for elastic fluid turbine power plants (A) | 355 | | | | |
| THERMOELECTRIC GENERATORS | | | | | |
| Thermoelectric generators (A) | 765 | | | | |
| THERMOMETERS. See Instruments—Temperature | | | | | |
| THOMPSON, A. STANLEY | | | | | |
| Flow of heated gases (A) | 1013 | | | | |
| THOMPSON, F. C. | | | | | |
| Strength and failure characteristics of metal membranes in circular bulging (A) | 918 | | | | |
| THOMSON, W. T. | | | | | |
| Vibration of slender bars with discontinuities in stiffness (A) | 1014 | | | | |
| THOREN, R. L. | | | | | |
| Icing flight tests of the Lockheed P2V (A) | 837 | | | | |
| THORNHURST, ARTHUR S. | | | | | |
| The guarantee of annual wages (BR) | 264 | | | | |
| THURBER, E. A. | | | | | |
| Studies in boundary lubrication—II Influence of adsorbed moisture films on coefficient of static friction between lubricated surfaces (A) | 158 | | | | |
| TIME AND MOTION STUDY | | | | | |
| Methods-time measurement (BR) | 1027 | | | | |
| TIN MINING | | | | | |
| Malayan tin mining (A) | 547 | | | | |
| TIN PLATE | | | | | |
| Engineering the tin can | 315 | | | | |
| TINKER, TOWNSEND | | | | | |
| Shell-side heat-transfer characteristics of segmentally baffled shell-and-tube heat exchangers (A) | 462 | | | | |
| TIRES | | | | | |
| Dynamic testing machine (A) | 438 | | | | |
| TITANIUM | | | | | |
| Titanium (A) | 910 | | | | |
| TODD, JAMES MULHERRIN | | | | | |
| Biography | 710 | | | | |
| Nominated for president | 709 | | | | |
| TOLERANCES. See Standards | | | | | |
| TOOLIN, P. R. | | | | | |
| Receives Charles B. Dudley Medal | 707 | | | | |
| TORSION. See also Shafts | | | | | |
| A numerical solution for the torsion of hollow sections (A) | 160 | | | | |
| TOWBOATS | | | | | |
| Diesel application on the inland waterways (A) | 835 | | | | |
| TOWNSEND, JAMES W. | | | | | |
| What the labor-management relations act of 1947 means to executives | 226 | | | | |
| TOWNSLEY, H. V. | | | | | |
| Nonmetallic bearings II—some general information about lignum-vitae bearings | 600 | | | | |
| TRANSMISSIONS. See Drives | | | | | |
| TRANSPORTATION. See also Air Transportation | | | | | |
| Diesel application on the inland waterways (A) | 835 | | | | |
| Traffic considerations leading to the establishment of high-speed freight service and related operating problems (A) | 1019 | | | | |
| TRENT, H. M. | | | | | |
| The absolute calibration of electromechanical pickups (A) | 160 | | | | |
| TROY, WALTER C. | | | | | |
| Properties of beryllium copper (D) | 162 | | | | |
| TRUAX, T. R. | | | | | |
| Results of accelerated tests and long-term exposures on glue joints in laminated beams (A) | 358 | | | | |
| TRUCKS. See Industrial Trucks, Railroad Cars | | | | | |
| TRUMPLER, P. R. | | | | | |
| An extension of two-steam heat-exchanger theory to include the effect of longitudinal conduction (A) | 696 | | | | |
| TSU, T. C. | | | | | |
| Energy in the engine exhaust (A) | 1014 | | | | |
| TUBE SHEETS | | | | | |
| Heat-exchanger tube-sheet design (A) | 357 | | | | |
| TUBES. See also Boiler Tubes | | | | | |
| Behavior of steel under biaxial stress as determined by tests on tubes (A) | 550 | | | | |
| The effect of size and stored energy on the fracture of tubular specimens (A) | 454 | | | | |
| Effect of some processing variables on the stress required to draw tubular parts (A) | 35 | | | | |
| Fracture of gray-cast-iron tubes under biaxial stresses (A) | 918 | | | | |
| Superheater tube failures (A) | 625 | | | | |
| TUCKER, S. A. | | | | | |
| How gas turbines fit into future power patterns | 796 | | | | |
| Standards manager for ASME | 568 | | | | |
| TUCKER, WILLIAM B. | | | | | |
| Construction of gas turbine for locomotive power plant | 877 | | | | |
| TUNGSTEN | | | | | |
| Electrodeposition (A) | 34 | | | | |
| Tungsten resources of Japan (A) | 152 | | | | |
| TUNNELS. See Flow of Fluids, Research, Wind Tunnels | | | | | |
| TURBINES. See also Steam Turbines | | | | | |
| Proposed recommended practices for the preparation of new turbine lubricating systems (A) | 365 | | | | |
| The universal optimum power cycle for elastic fluid turbine power plants (A) | 355 | | | | |

TURBULENCE. *See* Flow of Fluids

- 837 TURCHETTI, A. J.
Design of vane turns for a large water
tunnel (A)..... 631

U

- 1027 UEHLING, E. A.
Receives certificate of 65 years membership..... 643
- 547 ULTRASONICS. *See* Supersonics
- 315 UNDERWOOD, JAMES W.
Major advances in plastics during 1947... 298
- 462 UNIONS. *See also* Industrial Relations
The management-labor relationship
(BR)..... 701
- 438 Ten months of the Taft-Hartley Act.... 752
- 910 UNITED ENGINEERING TRUSTEES
Elects officers..... 1034
Report for 1946-1947..... 87
- 710 UPDIKE, DAVID MONTGOMERY
Obituary..... 1050
- 709 URANIUM
Uranium production (A)..... 1010
Uranium search (A)..... 584

V

- 835 VANDERLINDEN, E. H.
Ten months of the Taft-Hartley Act... 752
- 226 VAN VLEET, H. S.
Engineering the tin can..... 315
- 600 VAUGHN, THOMAS H.
Which way up?..... 947
- VENEER
High-frequency molding method applied
to compound curvatures in wood..... 213
- 835 VEREIN DEUTSCHER INGENIEURE
Resumes publication of "VDI Zeitschrift"..... 783
- VIBRATION. *See also* Instruments—Vibration
- 1019 Calculation of torsional vibrations in engines (A)..... 836
- 160 The dynamic response of a simple elastic system to antisymmetric forcing functions characteristic of airplanes in unsymmetric landing impact (A)..... 1014
- 162 The flutter of a uniform wing with tip weights (A)..... 36
- 358 Impact of a mass on a damped elastically supported beam (A)..... 916
- A mechanical analyzer for the solution of vibration problems of a single degree of freedom (A)..... 257
- Theory of a damped dynamic vibration absorber for inertial disturbances (A)..... 916
- The use of the centrifugal pendulum absorber for the reduction of linear vibration (A)..... 1015
- 696 Vibration of a beam with concentrated mass, spring, and dashpot (A)..... 37
- 1014 Vibration of a cantilever beam with prescribed end motion (A)..... 452
- 357 Vibration of a nonlinear system during acceleration through resonance (A)..... 257
- 550 Vibration of slender bars with discontinuities in stiffness (A)..... 1014
- VOCATIONAL GUIDANCE
Milwaukee plan of aptitude testing.... 750
Student counseling in New York City (D)..... 261
- 35 VON ELBE, GUENTHER
Ignition and flame stabilization in gases (A)..... 158
- 918 VON HOHENLEITEN, H. L.
Flow of coal in chutes..... 313
- 825 VON STROH, GERALD
A clinical approach to weldment design (A)..... 461

W

- WACHSMUTH, ERNST E.
User research as a tool in developing new industrial products (A)..... 459
- 65 WAGE PROBLEMS
The guarantee of annual wages (BR).... 264
- 55 WALKER, FREDERICK W.
Receives fifty-year membership pin.... 643

- WALTON, E. H.
Heat-pump installations (D)..... 260
- WANGAARD, F. F.
Integrated forest utilization (D)..... 463
- WARFARE
Atom-bomb explosion (A)..... 150
- WASTE IN INDUSTRY. *See* Industrial Wastes, Wood Waste
- WATER
Prediction of pressure drop during forced-circulation boiling of water (A) 462
- WATER COOLING
Cooling-tower analysis (A)..... 1013
- WATER TREATMENT. *See also* Feedwater Treatment
Demineralization processes (A)..... 251
Technical and economic aspects of water purification for ships (A)..... 251
- WATT, W. T.
Diesels in industry (A)..... 835
- WATTS, G.
The basic elastic theory of vessel heads under internal pressure (A)..... 365
- WEAR
Wear conferences at M.I.T. 382, 481
- WEATHER. *See* Meteorology
- WEBB, W. L.
High-pressure turbine deposit experience (A)..... 840
- WEIBEL, E. E.
A mechanical analyzer for the solution of vibration problems of a single degree of freedom (A)..... 257
Vibration of a nonlinear system during acceleration through resonance (A).... 257
- WEILLS, N. D.
Thermal-resistance measurements of joints formed between stationary metal surfaces (A)..... 696
- WEISSBERG, H.
Power from the wind (BR)..... 1027
- WEISS, DAVID HOWARD
Job opportunities (C)..... 1041
- WELDING
AIEE to sponsor electric welding conference..... 931
Arc-welding motion picture (A)..... 451
A clinical approach to weldment design (A)..... 461
Code restrictions on welding (C)..... 366, 772
Modern projection welding (A)..... 698
Repairs hydro adjustable blade turbines by welding (A)..... 912
Shape welding (A)..... 153
Welded joints (C)..... 637, 1022
Welding-engineering degree offered by Ohio State University..... 174
Welding jet engines (A)..... 24
Welding research (A)..... 685
- WESTERN SOCIETY OF ENGINEERS
Moves to new headquarters..... 565
- WHEELER, JAMES W.
Diagnosing engine troubles in flight (A) 635
- WHITE, A. E.
A study of the properties of 0.5 per cent chromium—0.5 percent molybdenum pipe steel (A)..... 1021
- WHITE, DAVID
A summary of experimental determinations of Joule-Thomson effects in gases (A)..... 839
- WHITE, H. S.
Measurements of the combined frictional and thermal behavior in journal-bearing lubrication (A)..... 457
- WHITE, MERIT P.
On the impact behavior of a material with a yield point (A)..... 916
The propagation of plasticity in uniaxial compression (A)..... 549
- WHITE, R. E.
Condensation of refrigerant vapors—apparatus and film coefficients for Freon-12 (A)..... 251
- WHITFORD, R. H.
Use of a technical library..... 987
- WHITING, EDWARD MALCOLM
Obituary..... 1050
- WICKARD, CLAUDE R.
Heat-pump installations (D)..... 260
- WIERUM, CARL
Considerations affecting sound utilization of gas (A)..... 1013
- WIESS, HARRY CAROTHERS
Charles P. Rand Medal..... 1034
- WIGHTMAN, IRVING L.
Pumping requirements for irrigation on Columbia Basin and Central Valley Projects of the Bureau of Reclamation (A)..... 417

- WILDER, A. B.
A study of the properties of 0.5 per cent chromium—0.5 per cent molybdenum pipe steel (A)..... 1021
- WILLARD, JOHN A.
Europe looks to America for technological assistance..... 813
- WILLARD, LEIGH
Honored by doctor of engineering degree..... 649
- WILLIAMS, CLYDE E.
Receives Medal for Merit..... 854
- WILLIAMS, G. C.
Generalized thermodynamics of high-temperature combustion (A)..... 840
- WILLIAMS, R. K.
Rubber in the automotive industry (A)... 630
- WILLIAMS, R. S.
Development of an air-operated force-measuring system (A)..... 159
- WILSON, W. E.
Performance criteria for positive-displacement pumps and fluid motors (A) 698
- WIND POWER
Wind power for the generation of electricity (A)..... 993
- WIND TUNNELS
Industrial use (A)..... 344
Low-pressure wind tunnel (A)..... 242
Supersonic diffusers for wind tunnels (A) 1014
Wind-tunnel optics (A)..... 446
Wind-tunnel testing (BR)..... 163
- WINDMILLS
Power from the wind (BR)..... 1027
Wind power (A)..... 345
- WINSTON, A. W.
Magnesium castings—their production and use..... 425
- WINZER, ALICE
The interaction of discontinuity surfaces in plastic fields of stress (A)..... 549
- WITTMAN, LAWRENCE
Plastic tooling comes of age (A)..... 629
- WOHLBERG, W. J.
Energy-release rates in furnace cavity (C)..... 699
The influence of reaction interface extension in the combustion of gaseous fuel constituents (A)..... 157
- WOLF, E. F.
Flow of coal in chutes..... 313
- WOLL, EDWARD
Thrust augmentation as applied to the turbojet engine (A)..... 915
- WONG, WEN-HAO
Confirmed premier of China..... 647
- WOOD. *See also* Plywood
Densified wood (A)..... 617
High-frequency molding method applied to compound curvatures in wood.... 213
Laminating for small-boat construction (A)..... 633
White-speck lumber (A)..... 904
- WOOD CONSTRUCTION
Nailing techniques (A)..... 240
Wood research at VPI..... 932
- WOOD INDUSTRIES
Factory layout and equipment for the mass production of molded plywood furniture (A)..... 634
Integrated forest utilization (D)..... 463
Radio-frequency heating in the wood-working industry (A)..... 358
Results of accelerated tests and long-term exposures on glue joints in laminated beams (A)..... 358
- WOOD WASTE
Integrated forest utilization (D)..... 463
Waste-wood utilization (A)..... 1005
- WOODBURN, JAMES
An experimental determination of the velocity of sound in superheated steam by ultrasonics (A)..... 257
- WOODBON, JOSEPH B.
The dynamic response of a simple elastic system to antisymmetric forcing functions characteristic of airplanes in unsymmetric landing impact (A)..... 1014
- WOODWORKING
Woodworking research and art of cutting woods (A)..... 1037
- WOODWORKING MACHINERY
Investigation of energy requirements for inserted-point circular headsaws (A)..... 913
- WOOLRICH, PAUL F.
Engineering and the medical sciences (D)..... 1022
- WORK HARDENING. *See* Metallurgy

| | | | | | |
|---|----------|---|----------|--|------|
| WORTHEN, E. P. Distilling-plant economy (D)..... | 76 | WYAND, C. S. American industry, Democracy's ace in the hole..... | 663, 923 | YOUNG, C. H. What can the machine-design field ex- pect from the recent college graduate (A)..... | 1020 |
| WRAITH, WILLIAM James Douglas Gold Medal..... | 1034 | | | YOUNG, J. F. Industrial applications of infrared (BR)..... | 561 |
| WRATHER, WILLIAM E. To head AIME in 1948..... | 178 | X | | | |
| WRIGHT, DONALD T. Diesel application on the inland water- ways (A)..... | 835 | | | | |
| WRIGHT, ORVILLE Obituary..... | 581 | Y | | | |
| WRIGHT, ROY V. Engineers and politics..... | 614 | | | | |
| Obituary..... | 660, 727 | | | | |
| WULFINGHOFF, M. F. Engineers, builders of a better world (BR)..... | 1025 | Z | | | |
| | | | | | |
| | | X RAYS X-ray thickness gage (A)..... | 352 | ZAMIS, ANTHONY F. Hobs for spline shafts (A)..... | 768 |
| | | YELLOTT, JOHN I. The coal-burning gas-turbine locomotive (A)..... | 248 | ZEDER, JAMES C. Making the most of engineering (A)..... | 383 |
| | | | | ZIEBER, W. E. Air conditioning (BR)..... | 367 |

1020
561
708
383
367

1000

1000